

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.



I.—CAN THERE BE A NATURAL SCIENCE OF MAN?

III.

WE have dwelt at length on the implication in ordinary perception of a spiritual action irreducible to phenomena, because the question whether and how far man is a part of nature, is apt to be debated exclusively on what is considered higher ground and, in consequence, without an admitted issue being raised. The transcendence of man is maintained on the ground of his exercising powers, which it may plausibly be disputed whether he exercises at all. The notion that thought can originate, or that we can freely will, is at once set down as a transcendental illusion. There is more hope of result if the controversy is begun lower down, with the analysis of an act which it is not doubted that we perform. Now, if the foregoing analysis be correct, the ordinary perception of sensible things or matters of fact involves the determination of a sensible process, which is in time, by an agency that is not in time—in Kant's language, a combination of "empirical and intelligible characters,"—as essentially as do any of those "higher" mental operations, of which the performance may be disputed. The sensation, of which the presentation as a fact is the nucleus of every perception, is an event in time. Its conditions again have all of them a history in time. It is true, indeed, that the relation between it and its cause, if its cause is understood

strictly as the sum of its conditions, is not one of time. The assemblage of conditions, "external" and "internal," constitutes the sensation. There is no *sequence* in time of the sensation upon the assembled conditions. But the assemblage itself is an event that has had a determinate history; and each of the constituent conditions has come to be what it is through a process in time. So much for the sensation proper. The presentation of the sensation, again, as of a fact related to other experience, is in like manner an event. A moment ago I had not so presented it: after a brief interval the perception will have given place to another. Yet the content of the presentation, the perception of this or that object, depends on the presence of that which in occurrence is past, as a fact united in one consciousness with the fact of the sensation now occurring; or rather, if the perception is one of what we call a developed mind, on numberless connected acts of such uniting consciousness, to which limits can no more be set than they can to the range of experience, and which yield the conception of a world revealed in the sensation. The agent of this neutralisation of time can as little, it would seem, be itself subject to conditions in time as the constituents of the resulting whole, the facts united in consciousness into the nature of the perceived object, are before or after each other.

We are not, however, fully stating the seemingly paradoxical character of everyday perception, in merely saying that it is a determination of events in time by a principle that is not in time. That is a description equally applicable to fact and to the perception of fact. For fact always implies relation determined by other relations in a universe of facts: and such relations, again, though they be relations of events to each other in time, imply, as has been previously pointed out, something out of time, for which all the terms of the several relations are equally present, as the principle of the synthesis which unites them in a single universe. But, in thus explaining the ultimate conditions of the possibility of fact, we need not assign the events themselves, and the determination of them by that which is not an event—the process of becoming, and the regulation of it as an orderly process,—to one and the same subject; as if the events happened to and altered the subject that unites them, or as if the source of order in becoming itself became. We cannot indeed suppose any real separation between the determinant and the determined. The order of becoming is only an order of becoming through the action of that which is not in becoming; nor can we think of this order as preceded by anything that was not an order of becoming. We contradict ourselves, if we say that there was first a chaos and then came

to be an order; for the "first" and "then" imply already an order of time, which is only possible through an action not in time. As little, on the other hand, can we suppose that which we only know as a principle of unity in relation, to exist apart from a manifold which through it is related. But we may avoid considering this principle, or the subject of which the presence and action render possible the relations of the world of becoming, as itself in becoming, or as the result of a process of becoming. It seems to be otherwise with our perceiving consciousness. The very consciousness, which holds together successive events as equally present, has itself apparently a history in time. It seems to vary from moment to moment. It apprehends processes of becoming in a manner which implies that past stages of the becoming are present to it as known facts; yet is it not itself coming to be what it has not been?

It will be found, we believe, that this apparent state of the case can only be explained by supposing that in the growth of our experience, in the process of our learning to know the world, an animal organism, which has its history in time, gradually becomes the vehicle of an eternally complete consciousness. What we call our mental history is not a history of this consciousness, which in itself can have no history, but a history of the process by which the animal organism becomes its vehicle. "Our consciousness" may mean either of two things; either a function of the animal organism, which is being made, gradually and with interruptions, a vehicle of the eternal consciousness; or that eternal consciousness itself, as making the animal organism its vehicle and subject to certain limitations in so doing, but retaining its essential characteristic as independent of time, as the determinant of becoming, which has not and does not itself become. The consciousness which varies from moment to moment, which is in succession, and of which each successive state depends on a series of "external and internal" events, is consciousness in the former sense. It consists in what may properly be called phenomena; in successive modifications of the animal organism, which would not, it is true, be what they are if they were not media for the realisation of an eternal consciousness, but which are not this consciousness. On the other hand, it is this latter consciousness, as so far realised in or communicated to us through modification of the animal organism, that constitutes our knowledge, with the relations, characteristic of knowledge, into which time does not enter, which are not in becoming but are once for all what they are. It is this again that enables us, by incorporation of any sensation to which attention is given into a system of known facts, to extend that system, and by means of fresh perceptions to arrive at further knowledge.

For convenience sake, we state this doctrine, to begin with, in a bald dogmatic way, though well aware how unwarrantable or unmeaning, until explained and justified, it is likely to appear. Does it not, the reader may ask, involve the impossible supposition that there is a double consciousness in man? No, we reply, not that there is a double consciousness, but that the one indivisible reality of our consciousness cannot be comprehended in a single conception. In seeking to understand its reality we have to look at it from two different points of view; and the different conceptions that we form of it, as looked at from these different points, do not admit of being united, any more than do our impressions of opposite sides of the same shield: and as we apply the same term "consciousness" to it, from whichever point of view we contemplate it, the ambiguity noticed necessarily attends that term. In any case of an end gradually realising itself through a certain organism a like difficulty arises. If we would state the truth about a living and growing body, we can only do it by the help of two conceptions, which we shall try in vain to reduce to a third. One will be the conception of the end, the particular form of life realised in the body—an end real and present, because operative, throughout the development of the body, but which we cannot identify with any stage of that development. The other will be that of the particular body, or complex of material conditions, organic to this end, as on the one hand dependent on an inexhaustible series of other material conditions, on the other progressively modified by results of the action—the life—to which it is organic. The particular living being is not less one and indivisible because we cannot dispense with either of these conceptions, if we would understand it aright, or because it is sometimes one, sometimes the other, of them that is predominant in our usage of the term "living being". In like manner, so far as we can understand at all the reality of consciousness, one and indivisible as it is in each of us, it must be by conceiving both the end, in the shape of a completed knowledge that gradually realises itself in the organic process of sentient life, and that organic process itself with its history and conditions. We have not two minds, but one mind; but we can know that one mind in its reality only by taking account, on the one hand, of the process in time by which effects of sentient experience are accumulated in the organism, yielding new modes of reaction upon stimulus and fresh associations of feeling with feeling; on the other, of the system of thought and knowledge which realises or reproduces itself in the individual through that process, a system into the inner constitution of which no relations of time enter.

If we examine the notion of intellectual progress common to

all educated men, we find that it virtually involves this twofold conception of the mind. We regard it as a progress towards the attainment of knowledge or true ideas. But we cannot suppose that those relations of facts or objects in consciousness, which constitute any piece of knowledge of which a man becomes master, first come into being when he attains that knowledge; that they pass through the process by which he laboriously learns, or gradually cease to be as he forgets or becomes confused. They must exist as part of an eternal universe—and that a spiritual universe or universe of consciousness—during all the changes of the individual's attitude towards them, whether he is asleep or awake, distracted or attentive, ignorant or informed. It is a commonplace indeed to assert that the order of the universe remains the same, however our impressions may change in regard to it; but, as the commonplace is apt to be understood, the universe is conceived in abstraction from consciousness, while consciousness is identified simply with the changing impressions, of which the unchanging order is independent. But the unchanging order is an order of relations; and, even if relations of any kind could be independent of consciousness, certainly those that form the content of knowledge are not so. As known they exist only for consciousness; and, if in themselves they were external to it, we shall try in vain to conceive any process by which they could find their way from without to within it. They are relations of facts, which require a consciousness alike to present them as facts and to unite them in relation. We must hold then that there is a consciousness for which the relations of fact, that form the object of our gradually attained knowledge, already and eternally exist; and that the growing knowledge of the individual is a progress towards this consciousness. It is a consciousness, further, which is itself operative in the progress towards its attainment, just as elsewhere the end realised through a certain process itself determines that process; as a particular kind of life, for instance, informs the processes organic to it. Every effort fails to trace a genesis of knowledge out of any thing which is not, in form and principle, knowledge itself. The most primitive germ from which knowledge can be developed is already a perception of fact, which implies the action upon successive sensations of a consciousness which holds them in relation, and which therefore cannot itself be before or after them, or exist as a succession at all. And every step forward in real intelligence, whether in the way of addition to what we call the stock of human knowledge, or of an appropriation by the individual of some part of that stock, is only explicable on the supposition that successive reports of the senses, successive efforts of attention, successive processes of

observation and experiment, are determined by the consciousness that all things form a related whole—a consciousness which is operative throughout their succession and which at the same time realises itself through them.

A familiar illustration may help to bring home that view of what is involved in the attainment of knowledge for which we are here contending. We often talk of reading the book of nature; and there is a real analogy between the process in which we apprehend the import of a sentence, and that by which we arrive at any piece of knowledge. In reading the sentence we see the words successively, we attend to them successively, we recall their meaning successively. But throughout that succession there must be present continuously the consciousness that the sentence has a meaning as a whole; otherwise the successive vision, attention and recollection would not end in a comprehension of what the meaning is. This consciousness operates in them, rendering them what they are as organic to the intelligent reading of the sentence. And when the reading is over, the consciousness that the sentence has a meaning has become a consciousness of what in particular the meaning is,—a consciousness, in which the successive results of the mental operations involved in the reading are held together, without succession, as a connected whole. The reader has then, so far as that sentence is concerned, made the mind of the writer his own. The thought which was the writer's when he composed the sentence, has so determined, has so used as *organs*, the successive operations of sense and soul on the part of the reader, as to reproduce itself in him through them; and the first stage in this reproduction, the condition under which alone the processes mentioned contribute to it, is the conviction on the reader's part that the sentence is a connected whole, that it has a meaning which may be understood. This conviction, it is true, is not wrought in him by the thought of the writer expressed in that particular sentence. He has learnt that sentences have a meaning before applying himself to that particular one. Before anyone can read at all, he must have been accustomed to have the thought of another reproduced in him through signs of one kind or another. But the first germ of this reproduction, the first possibility or receptivity of it, must have consisted in so much communication of some one else's meaning as is implied in the apprehension that he has a meaning to convey. It is through this elementary apprehension that certain functions of one man's soul—the soul of a listener or reader—become so organic to the thought of another, as that this thought gradually realises itself anew in the soul of the listener.

May we not take it to be in a similar way that the system of

related facts, which forms the objective world, reproduces itself, partially and gradually, in the soul of the individual who in part knows it? That this system implies a mind or consciousness for which it exists, as the condition of the union in relation of the related facts, is not an arbitrary guess. We have seen that it is the only answer which we have any ground for giving to the question, how such a union of the manifold is possible. On the other side, our knowledge of any part of the system implies a like union of the manifold in relation; such a presentation of feelings as facts, and such a determination of the facts by mutual relation, as is only possible through the action upon feelings of a subject distinguishing itself from them. This being so, it would seem that the attainment of the knowledge is only explicable as a reproduction of itself, in the human soul, by the consciousness for which the cosmos of related facts exists—a reproduction of itself, in which it uses the sentient life of the soul as its organ. Because the reproduction has thus a process in time for its organ, it is at once progressive and incapable of completion. It is "never ending, still beginning," because of the constant succession of phenomena in the sentient life, which the eternal consciousness, acting on that life, has perpetually to gather anew into the timeless unity of knowledge. There never can be that actual wholeness of the world for us, which there must be for the mind that renders the world one. But though the conditions under which the eternal consciousness reproduces itself in our knowledge, are thus incompatible with finality in that knowledge, there is that element of identity between the first stage of intelligent experience—between the simplest beginning of knowledge—and the eternal consciousness reproducing itself in it, which consists in the presentation of a many in one, in the apprehension of facts as related in a single system, in the conception of there being an order of things, whatever that order may turn out to be. Just as the conviction that a speaker or writer has a meaning is at once the first step in the communication of his thought to a listener or reader, and the condition determining all the organic processes of reading and listening which end in the reproduction of the thought, so the conception described is at once the primary form in which that mind to which the world is relative communicates itself to us, and the influence which renders the processes of sensuous experience into organs of its communication. It is only as governed by the forecast of there being a related whole that these processes can yield a growing, though for ever incomplete, knowledge of what in detail the whole is.

There should by this time be no need of the reminder, that the evidence of the action of this fore-casting idea, in the several

stages of our learning to know, does not depend on any account of it which the learner may be able to give. Whether he is able to give such an account or no, depends on the development of his powers of reflection, and the idea is at work before it is reflected on. The evidence of its action lies in results inexplicable without it. Nor must we imagine it, as the doctrine of innate ideas might lead us to do, antecedent in time to the processes of learning through which it realises itself, and which, in so doing, it makes what they are. This would be the same mistake as to suppose the life of a living body antecedent in time to the functions of the living body. It is inconsistent with the essential notion that the consciousness of a related whole, *so far as it is ours*, is an end realising itself in and determining the growth of intelligence. Thus when the question is raised, whether the conception of the uniformity of nature precedes or follows upon the inartificial and unmethodised exercise of induction, the answer must be either that it does both or that it does neither: or, better, that the question, being improperly put, does not admit of an answer. The conception of the uniformity of nature is one form of the consciousness on which we have been dwelling; and the processes of experience are related to it as respiration or the circulation of the blood is related to life. It is the end to which they are organic; but, at the same time, it is so operative in them that without it they would not be what they are. It is no more derivable from processes of sense, *as these would be without it*—from excitements and reactions of the nervous system—than life is derivable from mechanical and chemical functions of that which does not live. Under various expressions, it is the primary form of the intellectual life in which the eternal consciousness—the spirit for which the relations of the universe exist—reproduces itself in us. All particular knowledge of these relations is a filling up of this form, which the continued action of the eternal consciousness in and upon the sentient life renders possible.

Throughout this discussion of the conditions of knowledge our object, it will be remembered, has been to arrive at some conclusion in regard to the position in which man himself stands to the system of related phenomena called nature—in other words, in regard to the freedom of man; a conclusion on which the question of the possibility of Ethics, as other than a branch of physics, depends. Arguing, first, from the characteristics of his knowledge, postponing for the present the consideration of his moral achievement, our conclusion is that, while on the one hand his consciousness is throughout empirically conditioned,—in the sense that it would not be what at any time it is but for

a series of events, sensible or related to sensibility, some of them events in the past history of consciousness, others events affecting the animal system organic to consciousness,—on the other hand his consciousness would not be what it is, *as knowing*, or as a subject of intelligent experience, but for the self-realisation or reproduction in it, through processes thus empirically conditioned, of an eternal consciousness, not existing in time but the condition of there being an order in time, not an object of experience but the condition of there being an intelligent experience, and in this sense not “empirical” but “intelligible”. In virtue of his character as knowing, therefore, we are entitled to say that man is, according to a certain well-defined meaning of the term, a “free cause”. Let us reconsider shortly what that meaning is.

By the relation of effect to cause, unless the “cause” is qualified by some such distinguishing adjective as that just employed, we understand the relation of a given event, either to another event invariably antecedent to it, and upon which it is invariably sequent, or to an assemblage of conditions which together constitute the event—into which it may be analysed. Such a cause is not a “free” cause. The uniformly antecedent event is in turn dependent on other events; any particular sum of conditions is determined by a larger complex, which we at least cannot exhaust. But the condition of the possibility of this relation in either of its forms—the condition of events being connected in one order of becoming, the condition of facts being united in a single system of mutual determination—is the action of a single principle, to which all events and facts are equally present and relative, but which distinguishes itself from them all and can thus unite them in their severalty. In speaking of this principle we can only use the terms we have got; and these, being all strictly appropriate to the relations, or objects determined by the relations, which this principle renders possible but under which it does not itself subsist, are strictly inappropriate to it. Such is the term “cause”. So far indeed as it indicates the action of something which makes something else what it is, it might seem applicable to the unifying principle which makes the world what it is. But we have no sooner so applied it than we have to qualify our statement by the reminder, that to the unifying principle the world, which it renders one, cannot be something else than itself *in the same way* as, to ordinary apprehension, a determined fact is something else than the conditions determining it, or an event caused something else than the antecedent events causing it. That the unifying principle should distinguish itself from the manifold which it unifies, is indeed the condition of the unification; but it must not be supposed that the manifold has

a nature of its own apart from the unifying principle, or this principle another nature of its own apart from what it does in relation to the manifold world. Apart from the unifying principle the manifold world would be nothing at all, and in its self-distinction from that world the unifying principle takes its character from it; or, rather, it is in distinguishing itself from the world that it gives itself its character, which therefore but for the world it would not have.

It is true indeed of anything related as a cause to anything else on which it produces effects, that its efficiency in the production of those effects is an essential part of its nature, just as susceptibility to those effects is an essential part of the nature of that in which they take place. No group of conditions would be what they are but for the effect which it lies in them to produce; no events what they are but for the other events that arise out of them: any more than, conversely, the conditioned phenomenon, or necessarily sequent event, has a nature independent of its conditions or antecedents. Still every particular cause, whether agent or assemblage of conditions or antecedent event, has a nature, made for it by other agents, conditions or antecedent events, which appears but partially in any particular effect; and again the patient or conditioned phenomenon or sequent event, in which that effect appears, has a nature other than that which it derives from the particular cause. Therefore in the determined world there is a sense in saying that a cause is something on which something *else* depends for being what it is, which no longer holds when the effect is the whole determined world itself, and the cause the unifying principle implied in its determinateness. There is nothing to qualify the determined world *as a whole* but that inner determination of all contained in it by mutual relation, which is due to the action of the unifying principle; nor anything to qualify the unifying principle but this very action, with the self-distinction necessary to it. When we transfer the term "cause," then, from a relation between one thing and another within the determined world to the relation between that world and the agent implied in its existence, we must understand that there is no separate particularity in the agent, on the one side, and the determined world as a whole, on the other, such as characterises any agent and patient, any cause and effect, within the determined world. The agent must act absolutely from itself in the action through which that world is—not, as does everything within the world, under determination by something else. The world has no character but that given it by this action: the agent no character but that which it gives itself in this action.

This is what we mean by calling the agent a "free cause".

But the question at once arises whether, when we have thus qualified the term "cause" by an epithet which effectually distinguishes it from any cause cognisable within the world of phenomena, it still has a meaning for us. The answer is that but for our own exercise of such causality it would have none. But, in fact, our action in knowledge—the action by which we connect successive phenomena in the unity of a related whole—is an action as absolutely from itself, as little to be accounted for by the phenomena which through it become an intelligent experience, or by anything alien to itself, as is that which we have found to be implied in the existence of the universal order. This action of our own "mind" in knowledge—to say nothing of any other achievement of the human spirit—becomes to us, when reflected on, a *causa cognoscendi* in relation to the action of a self-originating "mind" in the universe; which we then learn to regard as the *causa essendi* to the same action, exercised, under whatever limiting conditions, by ourselves. We find that, quite apart from the sense in which all facts and events, including those of our natural life, are determined by that mind without which nature would not be, there is another sense in which we ourselves are not so much determined by it as identified by it with itself, or made the subjects of its self-communication. All things in nature are determined by it, in the sense that they are determined by each other in a manner that would be impossible but for its equal, self-distinguishing presence to them all. It is thus that the events of our natural life are determined by it; not merely the mechanical and chemical processes presupposed by that life, but the life itself, including all that can properly be called the successive phenomena of our mental history. But to say that it is thus determined, though it is true of our natural life, is not the full account of it: for this life, with its constituent events or phenomena, is organic to a form of consciousness of which knowledge is the development, and which, if for no other reason than that it conceives time, cannot itself be in time. While the processes organic to this consciousness are determined by the mind to which all things are relative, in the sense that they are part of a universe which it renders possible, this consciousness itself is a reproduction of that mind, in respect, at least, of its attributes of self-origination and unification of the manifold.

It may be asked here, what after all is the conclusion as to the freedom of man himself to be drawn from these considerations in regard to knowledge. "Granted," it may be said, "that the knowledge of nature is irreducible to a natural process, that it implies the action of a principle not in time, which you may call, if you please, an eternal mind; still you admit that man's

attainment of knowledge is conditional on processes in time and on the fulfilment of strictly natural functions. These processes and functions are as essential to man, as much a part of his being, as his knowledge is. How then can it be said that the being itself, thus conditioned, is not a part of nature but is free? Or, if this statement is made and can be justified, must it not be left alongside of an exactly contrary statement? Do you not after all leave man still "In doubt to deem himself a God or beast"; still perplexed with the "partly this, partly that" conclusion, for which philosophy, if good for anything, should substitute one more satisfactory, but which, on the contrary, it seems merely to restate in a more prolix form?"

We answer that, if the foregoing considerations have any truth in them, we are not shut up in this ambiguity. To say that man in himself is *in part* an animal or product of nature, on the ground that the consciousness which distinguishes him is realised through natural processes, is not more true than to say that an animal is in part a machine, because the life which distinguishes it has mechanical structures for its organs. If that activity of knowledge on the part of man, to which functions provisionally called natural are organic, is as absolutely different from any process of change or becoming as we have endeavoured to show that it is, then even the functions organic to it are not described with full truth when they are said to be natural. For the constituent elements of an organism can only be truly and adequately conceived as rendered what they are by the end realised through the organism. The mechanical structure organic to life is not adequately conceived as a machine, though, for the purpose of more accurate examination of the structure in detail, it may be convenient to treat it as such. And, for a like reason, the state of the case in regard to a man is not fairly represented by saying that, though not merely an animal or natural, he is so in respect of the processes of physical change through which an intelligent consciousness is realised in him. In strict truth the man who knows, so far from being an animal altogether, is not an animal at all or even in part. The functions, which would be those of a natural or animal life if they were not organic to the end consisting in knowledge, just because they are so organic, are not in their full reality natural functions, though the purposes of detailed investigation of them—perhaps the purpose of improving man's estate—may be best served by so treating them. For one who could comprehend the whole state of the case, even a digestion that served to nourish a brain, which was in turn organic to knowledge, would be essentially different from digestion in an animal incapable of knowledge, even if it were not the case

that the digestive process is itself affected by the end to which it is mediately relative. And, if this is true of those processes which are directly or indirectly organic to knowledge but do not constitute or enter into it, much more is it true of the man capable of knowledge, that in himself he is not an animal, not a link in the chain of natural becoming, in part any more than at all.

The question whether a man himself, or in himself, is a natural or animal being, can only mean whether he is so in respect of that which renders him conscious of himself. There is no sense in asking what anything *in itself* is, if it has no self at all. That which is made what it is wholly by relations to other things, neither being anything but their joint result nor distinguishing itself from them, has no self to be inquired about. Such is the case with all things in inorganic nature. Of them at any rate the saying "*Natur hat weder Kern noch Schale*" is true without qualification. The distinction between inner and outer, between what they are in themselves and what they are in relation to other things, has no application to them. In an organism, on the other hand, the distinction between its relations and itself does appear. The life of a living body is not, like the motion of a moving body, simply the joint result of its relations to other things. It modifies those relations, and modifies them through a nature not reducible to them, not constituted by their combination. Their bearing on it is different from what it would be if it did not live; and there is so far a meaning in saying that the organism is something in itself other than what its relations make it—that, while it is related to other things according to mechanical and chemical laws, it has itself a nature which is not mechanical or chemical. There is a significance, accordingly, in the inquiry what this nature in itself is, which there is not in the same inquiry as applied to anything that does not live. But the living body does not, as such, present its nature to itself in consciousness. It does not consciously distinguish itself from its relations. Man, on the other hand, does so distinguish himself, and his doing so is his special distinction. The inquiry, therefore, what he in himself is, must refer not merely to a character which he has as more, and other, than a joint result of relations to other things—such a character he has as simply living,—but to the character which he has as consciously distinguishing himself from all that happens to him.

Now this distinction by man of himself from events is no less essentially different from any process in time or any natural becoming than is the activity of knowledge, which indeed depends upon it. It is through it that he is conscious of time, of becoming, of a personal history; and the active principle of this consciousness cannot itself be determined by these relations

in the way of time or becoming, which arise for consciousness through its action. The "punctum stans" to which an order of time must be relative that it may be an order of time, cannot itself be a moment or series of moments in that order; nor can the "punctum stans" in consciousness, necessary to the presentation of time, be itself a succession in consciousness. And that which is true in regard to the mere presentation of time is true also of everything presented in time—of all becoming, of every history. To be conscious of it we must unite its several stages as related to each other in the way of succession; and to do that we must ourselves be, and distinguish ourselves as being, out of the succession. "*Ἀνάγκη ἄρα ἀμυγῇ εἶναι τὸν νοῦν, ὥσπερ φήσιν Ἀναξαγόρας, ἵνα κρατῇ, τοῦτο δ' ἐστίν, ἵνα γνωρίξῃ*". It is only through our holding ourselves aloof, so to speak, from the manifold affections of sense, as constant throughout their variety, that they can be presented to us as a connected series, and thus move us to seek the conditions of the connexion between them. And again, when the conception of such conditions has been arrived at, it is only through the same detachment of self from the succession of its experiences that we can conceive the conditions as united in their changes by an unchanging law, which, as determining the order of all events in time, is itself unaffected by time.

Thus, while still confining our view to man's achievement in knowledge, we are entitled to say that in himself, *i.e.*, in respect of that principle through which he at once is a self and distinguishes himself as such, he exerts a free activity,—an activity which is not in time, not a link in the chain of natural becoming, which has no antecedents other than itself but is self-originated. There is no incompatibility between this doctrine and the admission that all the processes of brain and nerve and tissue, all the functions of life and sense, organic to this activity (though even they, as in the thinking man, cannot, for reasons given, properly be held to be merely natural), have a strictly natural history. There would only be such an incompatibility, if these processes and functions actually constituted or made up the self-distinguishing man, the man capable of knowledge. But this, as we have seen, is what they cannot do. Human action is only explicable by the action of an eternal consciousness, which uses them as its organs and reproduces itself through them. The question why there should be this reproduction, is indeed as unanswerable as every form of the question, why the world as a whole should be what it is. Why any detail of the world is what it is, we can explain by reference to other details which determine it; but why the whole should be what it is, why the mind which the world

implies should exhibit itself in a world at all, why it should make certain processes of that world organic to a reproduction of itself under limitations which the use of such organs involves—these are questions which, owing perhaps to those very limitations, we are equally unable to avoid asking and to answer. We have to content ourselves with saying that, strange as it may seem, it is so. Taking all the facts of the case together, we cannot express them otherwise. The unification of the manifold in the world implies the presence of the manifold to a mind, for which, and through the action of which, it is a related whole. The unification of the manifold of sense *in our consciousness* of a world implies a certain self-realisation of this mind in us through certain processes of the world which, as explained, only exists through it—in particular through the processes of life and feeling. The wonder in which philosophy is said to begin will not cease when this conclusion is arrived at; but, till it can be shown to have left some essential part of the reality of the case out of sight, and another conclusion can be substituted for it which remedies the defect, this is no reason for rejecting it.

Before proceeding, it may be well to point out that it is a conclusion which can in no wise be affected by any discovery, or (legitimately) by any speculation, in regard either to the relation between the human organism and other forms of animal structure, or to the development of human intelligence and the connexion of its lower stages with the higher stages of the intelligence of brutes. Having admitted that certain processes in time are organic in man to that consciousness exercised in knowledge, which we hold to be eternal, we have no interest in abridging those processes. If there are reasons for holding that man, in respect of his animal nature, is descended from "mere" animals—animals in whom the functions of life and sense were not organic to the eternal or distinctively human consciousness,—this does not affect our conclusion in regard to the consciousness of which, as he now is, man is the subject; a conclusion founded on analysis of what he now is and does. This conclusion could only be shaken by showing either that a consciousness of the kind which, for reasons already set forth, we describe as eternal, is not involved in knowledge, or that such a consciousness can in some intelligible way be developed out of those successions of feeling which can properly be treated as functions of the animal system; and this must mean that it has some element of identity with them. That countless generations should have passed during which a transmitted organism was progressively modified by reaction on its surroundings, by struggle for existence, or otherwise, till its functions became such that an eternal consciousness could realise or reproduce itself through them—

this might add to the wonder with which the consideration of what we do and are must always fill us, but it could not alter the results of that consideration. If such be discovered to be the case, the discovery cannot affect the analysis of knowledge—of what is implied in there being a world to be known and in our knowing it,—on which we found our theory of the action of a free or self-conditioned and eternal mind in man.

The question, however, of the development of the human organism out of lower forms is quite different from that of the relation between the intelligence exercised in our knowledge and the mere succession of "impressions and ideas," *i.e.*, of feelings in their primary, or more lively, and in their secondary, or less lively, stage. Till some flaw can be shown in the doctrine previously urged, we must hold that there is an absolute difference between change and the intelligent consciousness or knowledge of change, which precludes us from tracing any development of the one into the other, if development implies any identity of principle between the germ and the developed outcome. When we speak of a development of higher from lower forms of intelligence, there should be no mistake about what we mean, and what we do not mean. We mean the development of an intelligence which, in the lowest form from which the higher can properly be said to be developed, is already a consciousness of change, and therefore cannot be developed out of any succession of changes in the sensibility, contingent upon reactions of the "psychoplasm" or nervous system, however that system may have been modified by accumulated effects of its reactions in the past. To deny categorically on this account that the distinctive intelligence of man—his intelligence as knowing—can be developed from that of "lower animals" would indeed be more than we should be warranted in doing. We have much surer ground for saying what, in respect of our knowledge, we are than for saying what the animals are not. The analysis of what we do and have done in knowledge, which entitles us to certain conclusions as to what we must be in order to do it, is inapplicable to beings with whom we cannot communicate. If the animals have a consciousness corresponding to that which we exercise in knowledge, at any rate we cannot enter into it. Their actions, as observed from outside, would seem to be explicable without it—explicable as resulting from the determination of action by feeling and that of feeling by feeling, in other words as resulting from successive changes of the sensibility, without any need for ascribing to them any consciousness of change, any synthesis of the modifications they experience as belonging to an inter-related world. We are thus warranted in saying that we have no evidence of the presence in "brutes" of such an

intelligence as that which forms the basis of our knowledge; and that, *if it is absent*, there can, properly speaking, have been no development of our mind from such a mind as theirs. But this hypothetical negation is quite compatible with the admission that there may have been a progressive development, through hereditary transmission, of the animal system which has become organic to the distinctive intelligence of man; that the particular modes of successive feeling upon which a unifying intelligence supervenes in man, rendering them for him into a related world, may be the result of a past experience on the part of beings in whom such intelligence had not yet supervened, and who were in that sense not human; and that certain modifications of the sensibility, arising from this pre-human history, may have been the condition, according to some unascertained law, of that supervention of intelligence in man.

So far we have been dealing with what we may venture to call the metaphysics of experience or knowledge, as distinct from the metaphysics of moral action. We have been considering the action of the self-conditioning and self-distinguishing mind, which the existence of a connected world implies, in determining a particular product of that world, *viz.*, the animal system of man, with the receptive feelings to which that system is organic,—in so determining it as to reproduce itself, under limitations, in the capacity for knowledge which man possesses. The characteristic of this particular mode of its reproduction in the human self is the apprehension of a world which *is*, as distinct from one which *should be*. It constitutes a knowledge of the conditions of the feelings that occur to us, and of uniform relations between changes in those conditions. But the animal system is not organic merely to feeling of the kind just spoken of as receptive—to *impressions*, according to the natural meaning of that term, conveyed by the nerves of the several senses. It is organic also to wants, and to impulses for the satisfaction of those wants, which may be in many cases occasioned by impressions of the kind mentioned, but which constitute quite a different function of the animal system. These wants, with the sequent impulses, must be distinguished from the consciousness of wanted objects, and from the effort to give reality to the objects thus present in consciousness as wanted, no less than sensations of sight and hearing have to be distinguished from the consciousness of objects to which those sensations are conceived to be related. It has been sufficiently pointed out how the presentation of sensible things, on occasion of sensation, implies the action of a principle which is not, like sensation, in time, or an event or a series of events, but must equally be present to, and distinguish itself from, the several

stages of a sensation to which attention is given, as well as the several sensations attended to, which are referred to a single object. In like manner the transition from mere want to consciousness of a wanted object, from the impulse to satisfy the want to an effort for realisation of the idea of the wanted object, implies the presence of the want to a subject which distinguishes itself from it and is constant throughout successive stages of the want. So much is implied in the conversion of a want into the presentation of a wanted object, though the want be of strictly animal origin, and however slightly the object may be defined in consciousness. Every step in the definition of the wanted object implies a further action of the same subject, in the way of comparing various wants that arise in the process of life, along with the incidents of their satisfaction, as they only can be compared by a subject which is other than the process—not itself a stage or series of stages in the succession which it observes. At the same time as the reflecting subject traverses the series of wants, which it distinguishes from itself while it presents their filling as its object, there arises the idea of a satisfaction on the whole—an idea never realisable, but for ever striving to realise itself in the attainment of a greater command over means to the satisfaction of particular wants.

For the present we take no notice of any wanted objects but such as arise from the presentation by a reflecting subject to itself of wants that are of a purely animal origin. With the exception of the object consisting in a general satisfaction of such wants, we take no account as yet of wants that are of distinctively human origin—of wants that arise out of conceptions. The form of consciousness which we are considering does indeed differ absolutely from the mere succession of animal wants; but it so differs, not in respect of the presence of such wants as are not of animal origin, but in virtue of that distinction of self from the wants, through which there supervenes upon the succession of wants a consciousness—not a succession—of wanted objects. It is this consciousness which yields, in the most elementary form, the conception of something that *should be* as distinct from that which *is*, of a world of practice as distinct from that world of experience of which the conception arises from the determination by the Ego of the receptive senses. Whereas in perceptive experience the sensible object carries its reality with it—in being presented at all, is presented as real, though the nature of its reality may remain to be discovered,—in practice the wanted object is one to which real existence has yet to be given. This latter point, it is true, is one which language is apt to disguise. The food which I am said to want, the treasure on which I have set my heart, are already in existence. But, strictly speaking,

the objects which in these cases I present to myself as wanted, are the eating of the food, the acquisition of the treasure; and so long as I want them, these exist for me only as ideas which I am striving to realise, as something which I would might be but which is not. Thus the world of practice depends on man in quite a different sense from that in which nature, or the world of experience, does so. We have seen indeed that independence is not to be ascribed to nature in the sense either that there would be nature at all without the action of a spiritual self-distinguishing subject, or that there could be a nature for us—for our apprehension—but for a further action of this subject in or as our soul. It is independent of us, however, in the sense that it does not depend on any exercise of our powers whether the sensible objects, of which we are conscious, shall become real or no. They are already real. On the other hand, it is characteristic of the world of practice that its constituents are objects of which the existence in consciousness, as wanted, is prior to, and conditions, their existence in reality. It depends on a certain exercise of our powers, determined by ideas of the objects as wanted, whether those ideas shall become real or no.

The same thing may be otherwise stated by saying that the world of practice—the world composed of moral or distinctively human actions, with their results—is one in which the determining causes are *motives*; a *motive* again, being an idea of an end, which a self-conscious subject presents to itself, and which it strives and tends to realise. Now *prima facie*, as will be admitted on all hands, this causality of motives effectually distinguishes the world which moral action has brought, and continues to bring, into being, from the series of natural events. In the latter the occurrence of an event does not depend on an idea of the event, as a desired object, being previously presented. If then moral action is to be brought within the series of natural phenomena, it must be on the supposition that the motives which determine it, having natural antecedents, are themselves but links in the chain of natural phenomena; and that thus moral action, though distinguished from other kinds of natural event by its dependence on prior ideas, is not denaturalised, since the ideas on which it depends are themselves of natural origin.

The question whether this is so is the point really at issue in regard to the possibility and indispensableness of a Moral Philosophy which shall not be a branch of natural science; or, if we like to put it so, in regard to the freedom of moral agents. It is not the question commonly debated, with much ambiguity of terms, between “determinists” and “indeterminists”; not the question whether there is, or is not, a possibility of unmotivated

willing; but the question whether motives, of that kind by which it is the characteristic of moral or human action to be determined, are of properly natural origin or can be rightly regarded as natural phenomena.

If the foregoing analysis be correct, even those motives (defined above) which lie nearest, so to speak, to animal wants, are yet effectually distinguished from them and from any kind of natural phenomena. No one would pretend to find more than a strictly natural event either in any appetite or want incidental to the process of animal life, or in the effect of such a want in the way of an instinctive action directed to its satisfaction. But it is contended that such appetite or want does not constitute a motive proper; does not move to any distinctively human action, except as itself determined by a principle of other than natural origin. It only becomes a motive, so far as upon the want there supervenes the presentation of the want by a self-conscious subject to himself, and with it the idea of a self-satisfaction to be attained in the filling of the want.

It is not indeed that the want is intrinsically altered, or ceases to be a want, through the supervention upon it of the moral motive, properly so called; but that, while it continues or ceases and begins again, there arises a new agency, other than it, from its presence to a self-conscious subject which takes from it an idea of an object, in which self-satisfaction is to be sought. And the new agency, thus resulting, is no more a natural event or process, or the product of any such event or process, than is the self-consciousness to which it owes its distinguishing character. We may illustrate the state of the case from what takes place in physical life. A chemical process does not cease to be a chemical process because it goes on in a living organism, but it does become contributory to a result wholly different from any which, apart from a living organism, it could have yielded. On the other hand, life is not a chemical or mechanical process because chemical and mechanical processes are necessary to the living body, unless such processes can by themselves constitute life. No more is any moral action, or action from motives, a natural event because natural want is necessary to it, unless the self-consciousness, in and through which a motive arises out of the want, is itself a natural event or series of events or relation between events. That it is not so is scarcely less plain of self-consciousness, in that relation to want which yields a motive, than it is of it in that relation to sensation which yields perception and, through it, knowledge. Can that be an event or phenomenon, whether in the way of want or otherwise, which throughout the successive stages, the abatements and revivals, of a want presents the single idea of

the self-satisfaction to be attained in its filling; which unites successive wants in the idea of a general need for which provision is to be made, and holds together the successive wants and fillings as the connected but distinct incidents of an inner life, as an experience of happiness or the reverse? Can it, again, be a *series* of events—either the series of which the connexion in an inner life thus arises through its action, or any other series? Can it, finally, be the connexion or relation thus arising, or any other relation? But when we have rejected all these alternatives, when we have said that the practical self-consciousness, which is the distinguishing factor in all motives, is not an event or series of events or relation between events, we have said that it is not *natural* in the ordinary sense of that term; not natural at any rate in any sense in which naturalness would imply its determination by antecedent events, or by conditions of which it is not itself the source.

If the reader is satisfied by these considerations that there is something more than natural in the motive to a moral or distinctively human action, he may be apt to assume—since there is no disputing the dependence on animal impulse at any rate of those elementary motives to which we have so far confined our view—that animal impulse is one component of the motive, while self-consciousness is another; that the moral agent is partly an animal, partly a rational or self-realising subject. But against such a view we should protest as much as, previously, against the notion that the presence of a double consciousness in man was implied in the distinction pointed out between the process of sensation in time and its determination by a subject not in time, as alike necessary to perception and knowledge. If it would be untrue to say of the functions of life that they are partly chemical, because without chemical processes they could not be exercised, it is even more untrue to say of a motive, in the proper sense, that it is partly animal, because, unless an animal want occurred, it would not arise. The motive is not made up of a want and self-consciousness, any more than life of chemical processes and vital ones. It is one and indivisible; but, indivisible as it is, it results, as perception results, from the determination of an animal nature by a self-conscious subject other than it; so results, however, as that the animal condition does not survive *in* the result. The want, no doubt, may remain along with the new result—the motive, properly so called—which arises from its relation to self-consciousness, but it is not a part of it. Hunger, for instance, may survive along with the motive, involving some form of self-reference, which arises out of it in the self-conscious man—whether that motive be the desire to relieve himself from pain, or to give himself

pleasure, or to qualify himself for work, or to provide himself the means of living,—but hunger neither is that motive nor a part of it. If it were, the resulting act would not be moral but instinctive. There would be no moral agency in it. It would not be the man that did it, but the hunger or some “force of nature” in him. The motive in every imputable act for which the agent is conscious on reflection that he is answerable, is a desire for personal good in some form or other; and, however much the idea of what the personal good for the time is may be affected by the pressure of animal want, this want is no more a part or component of the desire than is the sensation of light or colour, which I receive in looking at this written line, a component part of my perception in reading it.

Whether our conclusion be accepted or no, it may be hoped that the point which it is sought to make good in regard to the distinctive character of motives has at least been made clear. What instinct is, whether there are in truth merely instinctive actions, is a question on which, though of late some men seem almost to have argued themselves into believing the contrary, there is much more room for doubt than there is as to the nature and reality of motives and the moral action determined by them. If we have to explain what we mean by instinct and instinctive action, we have to do it by excluding the essential characteristic of our own motives and motived action. By an instinctive action we mean one *not* determined by a conception, on the part of the agent, of any good to be gained or evil to be avoided by the action. It is superfluous to add, *good to himself*; for anything conceived as good in such a way that the agent acts for the sake of it, must be conceived as *his own* good, though he may conceive it as his own good only on account of his interest in others, and in spite of any amount of suffering on his own part incidental to its attainment. By a moral action—an action morally imputable or that can be called good or bad—we mean one that *is* so determined as the instinctive action is not. Clearly it is nothing but our knowledge of what moral or motived action is, that gives a meaning to the negation conveyed in the description of another sort of action as instinctive. Whether there in fact are actions, either done by ourselves under certain conditions or by other agents, that correspond to this negative description, can never be known with the same intimate certainty with which it is known that actions belonging to our conscious experience are related to motives in that manner of which the negative forms the meaning of the description of any action as instinctive.

It is true that it makes no difference to the outward form of an action whether it is so related to a motive or no; whether

it has a moral quality or—as would be the case, if it were determined *directly* by animal want—is merely instinctive, in the sense of not proceeding from a conception of personal good. It may have the same effect on the senses of an onlooker, the same nervous and muscular motions may be involved in it, the same physical results may follow from it, in the one case as in the other. But it is not by the outward form, thus understood, that we know what moral action is. We know it, so to speak, on the inner side. We know what it is in relation to us, the agents; what it is as our expression. Only thus indeed do we know it at all. In knowledge so derived, where from the nature of the case our judgments are incapable of verification in the ordinary sense by reference to matters of fact—for the motive which an act expresses is not what we commonly mean by a matter of fact—there is, no doubt, much liability to arbitrariness in the interpretation of the self-consciousness to which alone we can appeal. Against such arbitrariness, it would seem, we can only protect ourselves by great circumspection in the adoption of our formulæ, so that they may be as nearly adequate as possible to the inner experience which we mean them to convey, and by constant reference to the expression of that experience which is embodied, so to speak, in the habitual phraseology of men, in literature, and in the institutions of family and political life. However insufficient such safeguards may be, it remains the case that self-reflection is the only possible method of learning what is the inner man or mind that our action expresses; in other words, what that action really is. Judgments so arrived at must be the point of departure for all inquiry into processes by which our actual moral nature may have been reached, and into links of connexion between it and that of animals otherwise endowed. Whatever the result of such inquiries, it can only be through a confusion that we allow them to affect our conclusions in regard to the actuality of our conscious life. Our knowledge of what that life is may not seldom entitle us to reject speculations as to a process by which it has come about, on the ground that such a product as can be legitimately traced from the process is not the inner life which we know. But no inference from such supposed processes can entitle us to decide that this life is not that which a sufficiently comprehensive view of the evidence afforded by itself would authorise us in taking it to be: since the acceptance of this evidence as the given reality is the presupposition of any inquiry into a process by which the given reality has come to be.

It must be plainly admitted, then, that self-reflection is the basis of the view here given in regard to the distinctive character of the motives which moral actions represent. Any one

making this admission will of course endeavour to conduct his self-reflection as circumspectly as possible, and to save it as far as may be from errors which personal idiosyncrasy might occasion, by constant reference to the customary expressions of moral consciousness in use among men, and to the institutions in which men have embodied their ideas or ideals of permanent good. In the interpretation, however, of such expressions and institutions self-reflection must be our ultimate guide. Without it they would have nothing to tell: and it is to it, avowedly, that we make our appeal when we say that to every action morally imputable, or of which a man can recognise himself as the author, the motive is always some idea of the man's personal good—an idea absolutely different from animal want, even in cases where it is from anticipation of the satisfaction of some animal want that the idea of personal good is derived. Now a motive so constituted, like the perception which answers to it in the sphere of speculative intelligence, clearly admits of being considered in seemingly opposite ways. Two seemingly incompatible, yet equally true, sets of statements may be made in regard to it: which, however, are not really incompatible, because one relates to the motive in its full reality, which is not a sensible event, the other to a sensible event implied in it (as sensation is implied in perception) but which is not it. The sensible event or phenomenon, implied in the motive, like every other event, is determined by antecedent events according to natural laws. The motive itself, though it too is in its own way definitely determined, is not naturally determined. It is constituted by an act of self-consciousness which is not a natural event, an act in which the agent presents to himself a certain idea of himself—of himself doing or himself enjoying—as an idea of which the realisation forms for the time his greatest good. It is true that the moral quality of this act, its virtue or its vice, depends on the character of the agent. It is this that determines what the kind of greatest personal good, which under any set of circumstances he presents to himself, shall be. This character, in turn, has had its history, just as a man's developed intelligence, as it at any time stands, has had a history. But, just as this latter history, though to call it a history of an eternal consciousness would be a contradiction, has yet taken its distinctive nature, as a history of *intelligence*, from a certain action of an eternal self-distinguishing consciousness upon the processes of feeling; so the history of human character has been one in which the same consciousness has throughout been operative upon wants of animal origin, yielding in its action upon them that specific product which we call the history of human character.

The view which it is sought to convey may be made more plain by an instance. When Esau sells his birthright for a mess of pottage, his motive, we might be apt hastily to say, is an animal want. On reflection, if by "motive" is meant that which an action represents or expresses, the inner side of that of which the action is the outer, we shall find that it is not so. The motive lies in the presentation of an idea of himself as enjoying the pleasure of eating the pottage, or (which comes practically to the same thing) as relieved from the pain of hunger. Plainly, but for his hunger Esau could have no such motive. But for it his presentation of himself as a subject of pleasure could have taken no such form. But the hunger is not the presentation of himself as the subject of pleasure, still less the presentation of that particular pleasure as under the circumstances his greatest good: and therefore it is not his motive. If the action were determined directly by the hunger, it would have no moral character, any more than have actions done in sleep, or strictly under compulsion, or from accident, or (so far as we know) the actions of animals. Since, however, it is not the hunger as a natural force, but his own conception of himself, as finding for the time his greatest good in the satisfaction of hunger, that determines the act, Esau recognises himself as the author of the act. He imputes it to himself, and it is morally imputable to him—an act for which he is accountable, to which praise or blame are appropriate. If evil follows from it—whether in the shape of punishment inflicted by a superior, or of calamity ensuing in the course of nature to himself or those in whom he is interested—he is aware that he himself has brought it on himself. Hence remorse, and with it the possibility of change of heart. He may "find no place for repentance" in the sense of cancelling or getting rid of the evil which his act has caused; but in another sense the recognition of himself as the author of the evil is, in promise and potency, itself repentance.

"But how," it will be asked, "does this analysis of Esau's motive affect the question of his moral freedom?" We admit at once that if he is not free or self-determined in his motive, he is not free at all. To a will free in the sense of unmotivated we can attach no meaning whatever. Of the relation between will and desire more shall be said in the sequel. For the present the statement may suffice, that we know of no other expression of will but a motive in the sense above explained, or, as it may be called to avoid ambiguity, a strongest motive. Such a motive is the will in act. The question as to the freedom of the will we take to be a question as to the origin of such a strongest motive. The assertion that Esau's motive, and with it the action which expresses his character, is the joint outcome of his

circumstances and character, however true it may be, throws little light on the matter, unless followed by some further analysis of the circumstances and character. One "circumstance," no doubt, is his hunger, and this has a definite physical history. The physiologist, with sufficient knowledge and opportunity of examination, could trace its determining antecedents with the utmost precision. But even this hunger, *as it affects Esau's action*, is not really what it would be in relation to a merely natural agent, any more than the visual sensation, which this flower conveys to an intelligent person who attends to it, is really the same as that which it conveys to a merely sentient animal. The want in the one case, the sensation in the other, may rightly be abstracted from the self-consciousness by relation to which, in the cases supposed, it is really determined, for the purpose of investigating those natural conditions and antecedents which are unaffected by that relation; but it must not be forgotten that there *is* an abstraction in so treating it, and that, when the moral bearing of the want is in question, the abstraction may become misleading. The circumstances, which in combination with character affect moral action, just because they are so combined, are no longer what they would be merely as circumstances. They are not like forces converging on an inert body which does not itself modify the direction of the resulting motion. Thus even a circumstance in itself and in its antecedents so strictly physical as hunger, if it is Esau's hunger—the hunger of an agent morally endowed—has in effect a quality not determined by natural antecedents. Of the other circumstances bearing on Esau's action, or of the most important among them, it could not be admitted that they are merely physical at all, even in their origin or antecedents as distinct from their bearing on his act. We may perhaps classify them roughly under three heads—the state of his health, the outward manner of his life (including his family arrangements and the mode in which he maintains himself and his family), and the standard of social expectation on the part of those whom he recognises as his equals. All these have their weight in affecting the result which his character yields under the pressure of animal want, but they are all of them influences which have come to be what they are through processes in which human character or will has been an essential factor. Just as the result to which they contribute in his conduct, only arises from the particular mode in which the self-presenting and self-seeking Ego in him reacts upon them, so it is only through previous conduct similarly determined, on his own part or that of others, that such circumstances have taken their actual shape. Their formation at every stage has indeed been affected by events which, like the particular experience of

hunger in Esau's case, have each had their definite chain of physical antecedents; but it has only been as determined by relation to the human self that these events have yielded the given result in the shape of these particular circumstances. In the last resort, then, we are thrown back on the question of the character of the agency so exerted, alike in the formation of those circumstances by which the motive expressed in any moral action is affected, and in that reaction of the man upon the circumstances which actually yields that motive.

When we thus speak of the human self, or the man, reacting upon circumstances, giving shape to them, taking a motive from them, what is it exactly that we mean by this self or man? The answer must be the same as was given to a corresponding question in regard to the self-conscious principle implied in our knowledge. We mean by it a certain reproduction of itself on the part of the eternal self-conscious subject of the world—a reproduction of itself to which it makes the processes of animal life organic, and which is qualified and limited by the nature of those processes, but which is so far essentially a reproduction of the one supreme subject, implied in the existence of the world, that the product carries with it under all its limitations and qualifications the characteristic of being an object to itself. It is the particular human self or person, we hold, thus constituted, that in every moral action, virtuous or vicious, presents to itself some possible state or achievement of its own as for the time its greatest good, and acts for the sake of that good. The kind of good which at any point in his life the person presents to himself as greatest depends, we admit, on his past experience—his past passion and action—and on circumstances. But throughout the past experience he has been an object to himself, and thus the author of his acts in the sense just stated. And as for the circumstances, in the first place they only affect his action through the medium of that idea of his own good upon which he makes them converge; and, secondly, in respect of that part of them which is most important in its bearing on conduct, they themselves presuppose personal, self-seeking¹ agency of the kind described.

It will probably be objected that it makes no practical difference to the moral freedom of the individual, whether or no circumstances by which he is influenced are of strictly natural or of specially human origin, so long as it is not to the individual's own action that they are due. That there is a sense of

¹ The distinction between that sort of self-seeking which is the characteristic of all action susceptible of moral attributes, and that which is specially characteristic of bad moral action, will be considered in the sequel.

"freedom," indeed, in which it is very differently affected by such a "circumstance" as hunger or imminent death, and by such another "circumstance" as the customs and expectations of a society to which the individual belongs, will hardly be disputed. The freedom of an action must be taken to mean simply its imputability in the juristic sense, if it is alleged that it makes no difference to its freedom whether the agent is influenced in doing it by the circumstance of pressing physical need, or by the circumstance that his honour is appealed to by his family or his state. Before taking further notice, however, of the very various senses in which freedom is asserted of man, and of the relation in which our doctrine stands to them, it will be well to guard against further liability to misapprehension in respect of the doctrine itself.

T. H. GREEN.

NOTE.—It will be obvious, from the last sentence of the above paper, that the discussion is left unfinished; and the Editor of *MIND* permits me to add a few words respecting the three articles by the late Professor Green, which have appeared in the *Journal* during the present year.

They form the opening portions of a work on which Professor Green had been engaged for some years before his unlooked-for death in March. The book was to be entitled *Prolegomena to Ethics*. The part hitherto printed amounts, perhaps, to a fifth of the whole; and only about twenty pages remained to be written. The manuscript was entrusted to me, and I hope it may be published by the end of this year.

It would be out of place here to describe the contents of the book; but I may, in my own words but by the help of some introductory pages not yet printed, indicate its purpose, in so far as these three articles are specially concerned. In these pages Professor Green notices a state of mind common among educated men. They are ready to accept the current notion that the subject-matter of moral science differs in no essential respect from that of the physical sciences, and to consider the acceptance of this notion as a *sine qua non* of any moral philosophy worth attending to. Yet at the same time they, or the best of them, are greatly affected, through the medium of poetry, by ideas about human life which cannot be reconciled with this notion; and though they cannot in consistency regard such ideas as scientifically true, they practically find in them the expression of their deepest convictions. This state of things really means, however, that their deepest convictions exist only on 'scientific sufferance,' instead of being examined and reduced to a form in which they can be accepted as truth. And the way to such an examination is barred by the fixed idea that there is no essential difference between the moral action of man and the phenomena dealt with by some of the physical sciences.

This was the question, therefore, with which Professor Green thought it best to deal first of all. He was well aware of the disadvantage of placing the most difficult and abstract part of his reasonings in the fore-front of his book, but he was convinced that a moral philosophy which left the meta-physical question undiscussed behind it was utterly insecure, however much it might contain that was true and valuable. The later portions of the *Prolegomena to Ethics* deal with questions more concrete and more generally attractive than these earlier discussions, but they depend essentially upon them.

A. C. BRADLEY.

II.—THE UTILITARIAN 'OUGHT'.

THERE is but one drawback to the delight of reading an author so eminently clear in thought and expression as Mr. A. J. Balfour—namely, that if a single page in a hundred gives one pause, the resulting puzzlement and self-distrust are irritating just in proportion to the ease with which the other ninety-nine have been followed. It was in the hope of relief from this irritation, produced in me by one or two points in his very original discussion of the Philosophy of Ethics, that I began the following remarks; which, though in the end perhaps rather positive than critical, will gain clearness by being presented in connexion with their origin.

Mr. Balfour says (in *A Defence of Philosophic Doubt*, p. 21) that "the whole of our morality must be deduced from general principles which are not, and which cannot be, themselves inferences from particulars". Expanding his view in an Appendix, he defines an ethical proposition as one "which prescribes an action with reference to an end," the *fundamental* proposition, or major premiss for any ethical deduction, being that such and such an end for me is final and chosen for itself alone; and to such propositions, over and above the character already mentioned of being essentially *general* and not inferences from particulars, he attributes the further character of being essentially *non-scientific* and not based on experience. The great peculiarity of the above definition of ethical propositions clearly is that it includes *non-moral* and *immoral* propositions equally with moral ones, and gets rid therefore of the *differentia* of the latter which has been held to consist in universal obligation: in other words, "*I ought to do so and so*" can only mean "*I find or consider so and so binding on me*," and can never lead on to "*You ought to consider it binding on you*". Nor is there any escape from this conclusion, if Mr. Balfour's account of ethical propositions is exhaustively correct in respect of all systems. My first object is to show that in respect of at any rate *one* system, Utilitarianism (in Mr. Sidgwick's sense of Universalistic Hedonism), it is *not* exhaustively correct; and my mode of doing this will be by inquiring to what extent the two characteristics above mentioned apply to the basis of that system—that is, to say, whether, or in what sense, the basis of Utilitarianism is (1) non-scientific, (2) general and not an inference from particulars.

Mr. Balfour defines Science (p. 1) as "knowledge of phenomena and the relations subsisting between phenomena". Roughly speaking, he says, a scientific proposition "may be said

to state facts or events real or hypothetical," which description, he holds, does not apply to a proposition announcing obligation. "I ought to speak the truth" "does not announce an event; and if some people would say that it stated a fact, it is not certainly a fact either of the 'external' or of the 'internal' world," *i.e.*, either of physics in the widest sense or of psychology.¹ Now the proposition "I ought to speak the truth" is clearly with most thinking persons only a conclusion from some more fundamental proposition; the major premiss of the implied syllogism being, for the Utilitarian, "I ought to do that which promotes the greatest happiness," or some kindred phrase. My contention, then, is that this utilitarian major premiss is not simple but compound, and that it is made up of two simple elements, an ultimate *fact* and an ultimate *axiom*, which fact and axiom are both in nature entirely scientific.

Before examining them I may concede at once that the basis of the system, as commonly stated, does undoubtedly come within the range of Mr. Balfour's description: for reasons which will appear as we go on, however, I should be glad to begin by stating it in this form, and examine the results, before stating it in my own. As commonly conceived, then, the fact may be thus expressed:—I find my happiness to be a desirable end; and as multitudes agree with me in this experience, it may be further asserted that the happiness of each of these individuals is in the same sense a desirable end. We now come to the axiom, which may be put thus:—the happiness of A, and that of B, and that of C, being each in the same sense a desirable end, the happiness of A *plus* the happiness of B is more of a desirable end, or a more desirable end, than the equal happiness of C. Now at this point an *ought* clearly comes in; for I should say that any one considering the case *ought* to admit the truth of this axiom. And in using such terms, I at any rate *can* limit myself to the same meaning as when I say that any one who considers whether a whole is

¹ I must remark that Mr. Balfour in this Appendix seems unduly to confine the word *psychology* to the *history* of mental development and of the causes and origins of mental facts—a subject which, I quite agree with him, is wholly outside Ethics. This limitation of meaning is probably accidental, as for his purpose there was no special object in distinguishing psychology as occupied with causes and origins from the psychology which examines the facts *as they are*, apart from their causes and origins. It happens, however, that for the contention I am about to put forward this latter sense of the word is all-essential, nor do I think Mr. Balfour would deny its legitimacy: all I need ask him to admit is that the assertion "Sugar is sweet," or "It is often pleasant to stretch oneself," is as truly psychological, as much therefore a statement of scientific fact, as the assertion, *e.g.*, that the moral sense, or the pleasure of visual form, has been developed greatly through association.

greater than its part *ought* to decide in the affirmative. That which Mr. Balfour holds to be the *differentia* of ethical, *i.e.*, according to him of non-scientific, propositions, I hold equally applicable to the axioms of Mathematics, each of which is by implication "a proposition announcing obligation, which itself requires no proof"; and equally in their case the assertion of obligation, if denied, leaves the asserter without any argumentative reply. Practically, I should say that the chances of denial are equally remote in the two cases; that every one, who finds happiness to be desirable at all, will, on exercising his reason, perceive the happiness of the greater number to be more desirable than that of the smaller; and that though, if he be C and an egoist, he may prefer C's happiness to the similar happiness of A and B, his reason can have no part in that preference, in which he will not expect any impartial and rational fellow-creature to concur.

Why, then, is the Utilitarian system, as thus based, open to the charge of being non-scientific? The usual answer of course would be that in passing beyond the theoretic statement, and bringing the axiom of greater desirability into relation to *conduct*, we introduce a sense of *duty* which is essentially non-scientific. I shall have to speak of this further on; and will only here remark that the answer at any rate does not seem open to Mr. Balfour; who, clearly perceiving Ethics to be concerned not with the causes but with the reasons for action, has pointed out that it would remain wholly unchanged if not a single man ever had done or *ever could do* right. *Duty* surely implies *possibility*. But waiving this, and deferring the question whether in relating the *ought* to action we shall really affect its scientific character, I want first to show how, even restricting it to theoretic ground, we still cannot thereby make our system scientific. For though the *axiom* be scientific, the *fact* to which it was applied is not. As above given, the direct axiomatic judgment that the happiness of the greater number *ought* to be preferred as the more desirable end, presupposes that the happiness of each individual is already absolutely desirable, in the sense not of that which is *desired* or *capable* of being desired, but of that which *ought* to be desired.¹ And this primary judgment, that

¹ This distinction, as is well known, was overlooked by Mill, who assumes as self-evident that that is "*desirable*" which "people *do actually desire*"; and thus, after showing that what each desires for himself is a good, that this good is happiness, and so that general happiness is a "good to the aggregate," he can imagine himself to have given a complete proof that the general happiness is what each individual *ought* to desire. Mr. Balfour's expressions seem open to a similar charge of ambiguity. His assertion that the fundamental ethical proposition of every ethical system states an end which an adherent of that system "regards as final—as chosen for

the individual happiness *ought* to be desired, is an ethical and not a scientific judgment: the *ought* (granting for the moment that it can be legitimately used) is of a totally different sort from the scientific *ought* which came in with the axiom; the fact of the difference being as intuitively felt as the sense of the *ought* in either case. Is it possible then to find some other way of basing the Utilitarian system, which shall contain no *ought* except the axiomatic one? It seems to me that this may be done as follows.

Assuming that people desire their own happiness, I take as the primary fact "I feel a desire (not only for my but) for your happiness". This fact is clearly psychological and scientific, announcing no obligation. A similar description applies to the more extended form, "I feel a desire for the general happiness,"¹ which is just as scientific as "Sugar gratifies my palate". For simplicity's sake let me reduce this latter form to "I feel a desire for the happiness of *x*, *y*, and *z*, all strangers to me". I now go on to say "I desire the happiness of *x* and *y* more than the equal happiness of *z*". But I now claim to bring in the axiomatic *ought*, and say that I *ought* so to desire; the fact which justifies my doing so being simply the fact that a *comparison* has been instituted, and an alternative presented which needs to be reasonably decided one way or the other.² The sense of axiomatic obligation attaches not to the *desire* where there is no alternative, but to the *preference* where there is an alternative. As long as my or any other happiness is considered absolutely, I do not feel that I can make a distinction between "I *ought* to desire" and "I *do* desire". Imagining myself alone on a desert island, I feel that "I ought to"

itself alone," can only be reconciled with the statement (which Mr. Balfour rightly calls tautological) that ethical propositions announce obligation, by taking the words "chosen for itself alone" as = "one which he *ought* to choose for itself alone". The fundamental proposition, according to the literal meaning of Mr. Balfour's words, would lack, and lead to deductions lacking, any ethical or obligatory character at all. How, for instance, is "I choose my own pleasure for itself alone" other than a scientific statement of pure fact? And even if I say "I cannot help so choosing," it is a scientific statement of compulsion, not an ethical statement of obligation.

¹ It is to be noted that this proposition is one to which practically every one may be held to subscribe; since only those could be held to deny it who, if convinced that the general happiness could be secured by their lifting a finger, would refuse to do so.

² The comparison may take place even within the limits of individual experience, *e.g.*, where there is a conscious weighing of a lesser and nearer against a greater and more remote pleasure, in cases where we can eliminate the ordinary bird-in-the-hand notion which depends on the comparative uncertainty of the future.

would simply signify "I mean to"; and if there had never been such a thing as comparison or conflict of interests, if the gratification of every one's desires had always been completely compatible with that of every one else's, and the gratification of present desires with that of future ones, I do not see how the idea of an ethical ought could ever have presented itself: every one who felt a desire for others' happiness would have felt that desire to be as natural and as little obligatory as I should feel my desire for my own happiness to be on a desert island. I do not think that even the fact that other people did not share the feeling could have suggested the judgment that they *ought* to share it, inasmuch as *ex hypothesi* such absence of intuition on their part would not have had any effect in preventing or diminishing any one's happiness. But as soon as an alternative is presented, as soon as I am asked whether, of three equal actual ends of mine, the happiness of *x* and of *y* and of *z*, I prefer the result that *one* should be attained and *two* unattained, or that *two* should be attained and *one* unattained, I cannot decide on the latter without at the same time feeling that I am under a reasonable obligation to decide on it, precisely similar to that which drives me to admit in any other case that two is greater than one. And having arrived at this point, I seem to have reached ground on which I can make myself the *z* of the alternative without altering my sense of obligation: if a particular choice appears reasonable to me when the letters are merely the symbols of some three real but still unknown individuals, nothing can make it appear *reasonable* to me that I should alter my choice (though very likely I should alter it) when I find that *z* is to be myself. Had I known this to begin with, had the question never been presented to me except with *z* as myself, I might well have been unable to apply the axiom, because there would have been no principle of conduct to confront with the very probable fact that my happiness is actually more desired by me than that of *x* and *y*: but after passing through the stage of considering and deciding the alternative on impartial and purely reasonable ground, I cannot afterwards, when no change is introduced except that a particular name, my own, is given to *z*, decide *differently* and at the same time feel that I am deciding *reasonably*. If I egoistically prefer *z*'s, *i.e.*, my own, happiness as the end most desired by me, it is simply an "I mean to," not an "I ought to". Reason will have nothing to say to it; that is, though I may not be acting *unreasonably*, I shall certainly be acting *non-reasonably*; just as, to anticipate a future point, I hold myself to be acting not *unreasonably* but *non-reasonably* in seeking my own happiness when there is no alternative in question. And if the one decision is thus non-reasonable, the

other must be reasonable, unless the alternative admits from me of no reasonable solution.

The *prima facie* illegitimacy of this argument lies, of course, in my having applied an axiom, and so got an *ought*, on the understanding that a certain thing (the happiness of *x* and *y*) is the thing actually *by me* more desired, and retaining the *ought* even when that thing has become, it may be, the thing *by me* less desired. But on reflection there does not seem to be anything essential to the reasonableness of the comparison and the validity of the decision in the fact of its being my own particular mind in which the compared desires, the actual terms of the comparison, as well as the comparison itself, take place. The decision that of two things which are essentially ends, the greater, *i.e.*, that which has most end-stuff in it, must *quod* end prevail; that in reason the end cannot but be preferred for which there is actually going the greater amount of desire; if valid when the lesser end and the two which together make up the greater end are all desires of mine, loses nothing of its axiomatic cogency by a change in the mental *habitat* of one or more of the desires; any more than the axiom "things which are equal to the same thing are equal to one another" loses in cogency by a change of the position in space of some particular trio of equal things. The perception of the *more* end-stuff, the *more* of that the essence of which is to direct action, cannot be affected by the fact that the *less* with which it is compared has its place in *my* mind, and through that momentary proximity *looks* more to me. And what my egoism may make it impossible for me to prefer in my actual desire still remains for me what it is reasonable to aim at in my conduct, which, to be reasonable, must follow my axiom and not my accidental desire; the difficulty of keeping my axiom in the form "ought to prefer or desire" something which, it may be, I *cannot* prefer or desire being relieved just by this power of preferring *in conduct*, by this possibility of converting the "ought to desire" into "ought to aim at". If the axiom were confined to desire, to the exclusion of conduct, it might be represented that desire and volition, with their tendency to act independently of reason, produce in any axiom into which they enter an essential difference from other quantitative axioms; for while one can say not only that the whole *ought* to be acknowledged as greater than its part, but that to any individual at any moment it *does* appear so, one cannot say that to any individual at any moment the sum of two desires directed to equal ends appears, but only that it ought to be acknowledged as, greater than one. Egoism may make it *appear* less; and if it were then *impossible* for me to acknowledge it greater, the scientific character of the axiom that I *ought* so to acknowledge

it would certainly suffer; but conduct gives me a means of showing, and of knowing, that I acknowledge it greater even in the teeth of my own egoistic desire. Here then we seem to have got what we sought, a utilitarian basis with no *ought* in it except the scientific or axiomatic one; and with this explanation I need not scruple to speak of the basis as formed by the application of an axiom to a fact, even though the application may require too much reflection to be the immediate intuition of a moment.

The cause of the prevalent instinct that the obligation of assent is radically different in the case of ethical and of scientific principles, seems to be that in asserting that we believe scientific axioms we rarely have occasion to add distinctly, even in thought, the words "and so ought you"; whereas in asserting ethical axioms, those words represent as a rule what is most prominent in our intention. For in the subject-matter of Science there are never any temptations for men to set at nought the rational axioms, which are therefore accepted practically as well as theoretically. But in the subject-matter of Ethics such temptations are numerous; and we seek to bring other people's actions into conformity with our principle, by keeping perpetually before their eyes the fact that theoretically it is also *their* principle—the principle which as rational beings they cannot but admit to state the rational end of conduct, and which therefore they can only transgress under pain of running counter to their reason. But no difference of nature is here implied between the theoretical and the practical *ought*; the former means "must hold, as a rational being"; the latter means "must do, under pain of running counter to reason"; which clearly in no way extends the meaning of the obligation. Ends are of course essentially different from anything else, such as iron, which can be quantitatively estimated, and there must accordingly always remain a sense in which the difference between an axiomatic statement of duty and an axiomatic statement of fact may be called essential; but this difference lies in the *subject-matter* to which the axiomatic *ought* is applied, not to the *form* or *oughtness*. I do not of course deny that the meaning of the practical *ought* may be extended by Utilitarians, as it is by moralists of other schools, in such a manner as to justify Mr. Balfour's view of its non-scientific character: all I am concerned to show is that it *can* be used in my sense, and that then the parallelism can be made complete between the ethical and the scientific series of propositions. "You find (experientially) that a pound has weight; you ought (theoretically and rationally) to hold that two pounds have more weight; if you wish to avoid absurdity, you ought (practically and rationally) to sink a plummet with the latter

rather than the former." "You find (experientially) that the happiness of an individual is an end; you ought (theoretically and rationally) to hold that the happiness of a plurality of individuals is more of an end; if you wish to avoid absurdity, you ought (practically and rationally) to promote the latter rather than the former." In both series the final imperative is in form hypothetical: but in the second it becomes truly categorical, in so far as everyone whose mind acts at all shrinks inevitably from the jar of being consciously absurd. And even if this imperative were regarded not as supplanting but as supplementing an *ought* of purely ethical intuition, its share in that uniform and passionless certainty which is common to scientific axioms might still give it for many minds very great practical value.

But it may be said that there is still one peculiarity of the ethical *ought* which, even after the scientific character of the utilitarian proposition has been carried as far as I have carried it, remains irreducible; the fact, as expressed by Mr. Sidgwick, that an ethical proposition is "inseparably combined with an *impulse* to action of a peculiar kind, which it is necessary to distinguish from non-rational desires or inclinations"; that the cognition of rightness is "the cognition of a dictate or precept of Reason," which phrase "implies that in rational beings as such this cognition of rightness gives an *impulse* or motive to action". Now this impulse or motive to action can clearly only exist for me in relation to my own action; so that if its presence is made essential to the utilitarian proposition *quâ* ethical, I shall never be able to use that proposition either generally, as "The greatest happiness ought to be aimed at," or particularly, in the second person, as "You ought to aim at the greatest happiness". I do not think, however, that Mr. Sidgwick would allow the essential difference, implied in Mr. Balfour's view, between *ought* in the first and *ought* in the second person; and in that case, as I can see here no *via media* between Mr. Balfour's view and my own, I can only maintain that Mr. Sidgwick's sentences must be susceptible of interpretation in a sense consistent with the essentially scientific character of the utilitarian proposition, even as used in the first person. I should say, then, that the scientific character of that proposition is not affected by the mere fact of its being combined with an impulse. The judgment "This smell is disagreeable" is inseparable from an impulse to get away from the smell, but it is none the less a scientific proposition; and the difference between such a proposition and the utilitarian one lies simply in the latter's having an end as its subject-matter, and so stating, as scientifically reasonable, the precise fact which the impulse repeats: "I ought, scientifically, to recognise the superior dimensions of a certain end, and my impulse corresponds with

my cognition". Not that I would deny to the ethical proposition, as I perpetually make it, a peculiarity intuitively felt as such, and transcending the ground of scientific assertion even when that assertion is taken as inclusive of an impulse; but that peculiarity does not for me reside in the proposition *quod* proposition, but in the further mental condition in which it is often affirmed. As the above-mentioned impulse does not present itself in the "*You ought*" but only in the "*I ought*," so I should say that this further peculiarity does not present itself even in the "*I ought*," till that proposition is more or less deliberately and definitely related by me to my actual future conduct; the peculiarity then consisting just in what was noticed above, a unique sense of jar and conflict if conduct and reason are allowed to fall out of unison—an ultimate dislike to allow conduct to become unreasonable, such as I find otherwise exemplified in my refraining several times a day from doing some perfectly indifferent and trivial action, the idea of which comes across me, but of which I simply feel that its purposeless performance would lack rationality. And it seems to me that I am justified by Mr. Sidgwick himself in thus assuming the sufficiency in Ethics of reasonableness and unreasonableness as essential and ultimate notions. For in considering the strange persistency of the question "Why should I do what I see to be right?" and in accounting for it most happily by showing that *several different views* of the ultimate reasonableness of conduct exist side by side in the thought of ordinary men, so that an answer from one point of view always allows the question to slip round again from another, he seems to imply that, could these views of ultimate reasonableness be harmonised or reduced to one, the question "Why should I do what I see to be right" would be set at rest,—which in turn must surely imply that the judgment "*I ought*" need not be in essence anything more than ultimately reasonable, however peculiarly coloured in the process of relating it to one's actual conduct. I may further suggest that, on Mr. Sidgwick's view that the desire for one's own happiness, or "rational self-love," is one ultimate principle, and, as such, inclusive of the "peculiar" ethical impulse "which it is necessary to distinguish from non-rational desires and inclinations," this impulse must after all have such an enormous range of application that its *peculiarity* will not prevent its being rather the rule than the exception.

To return now to our analysis of the utilitarian proposition: we have seen how it is in the supervention of the axiom on the primary fact of experience that the scientific *ought* comes in; but I should say further that this too is the point at which the

proposition becomes *rational*, as opposed (not to irrational but) to *non-rational*. Thus when Mr. Balfour expresses his view of the non-scientific character of ethical propositions by saying that "the rational basis" of any ethical system "must be something other than an experience or a series of experiences," I am able to endorse his words; only I should apply them similarly to many scientific systems. I imagine that the basis of any system dealing with quantities, in order to be *rational*, must include more than mere facts of experience, such as "Stones have weight," or "Happiness is a desired end". It must include at least one axiom: that is, it must include something in which the mind does more than merely receive and record; something in which it is active, even though the activity be no more than trying to conceive the opposite and finding itself baffled in the effort. In Ethics the primary experiential basis, that happiness is an end, becomes rationalised only when I superpose the axiom, and assert that the happiness of the greater number must be acknowledged a more abundant end than that of the smaller. Similarly the fact of experience that a cubic foot of iron has weight only becomes part of a *rational* basis for mechanics when we superpose some axiom, and say, *e.g.*, that two such cubic feet must be acknowledged to have more weight; not till then can we perceive power to be economised by a lever which makes use of the former to raise the latter. Another consideration is this: if the mere taking happiness as an end is to be held reasonable, a mollusc often shows itself reasonable; while yet, as we do not attribute to it reason, its reasonableness is a matter not of its but of our perception. It is surely best to avoid language which would thus drive us to predicate a reasonableness divorced from reason and unknowable by its possessor.

It will be at once seen that to limit the use of the word *rational* in the way I suggest is not by any means to make Utilitarianism the only strictly rational system. For, in the first place, the intuitions which can strictly be called rational are not confined to quantitative axioms. Thus the ultimate mode of inference of the ordinary syllogism is rational, and its validity matter of universal intuition; so that any ethical basis which can be represented as the necessary conclusion of such a syllogism, will be at least formally rational, whatever its premisses may be. For instance, "The message of revealed religion emanates from Omniscience; the rules of revealed religion as to what we ought to do are part of its message; therefore the rules of revealed religion as to what we ought to do emanate from Omniscience, *i.e.*, from a source which *knows* what we ought to do"; or, in other words, we ought to do what revealed religion prescribes.

I have to admit that, so far as the major premiss of this syllogism is to anyone as certain an intuition (or a conclusion from intuitions as certain) as that happiness is an end, his ethical basis is as rational as mine, and he can equally demand that all who agree in his primary intuition or intuitions shall accept that basis. But this objection to the uniqueness of the utilitarian basis (whatever it may be worth) could not be brought by Mr. Balfour, inasmuch as he could not consistently accept the conclusion from a syllogism as an ethical basis at all; for he says it is obvious that the several principles at the base of all ethical systems must of necessity be *undervived* and require no proof. This assertion seems to me to require, on its own account, a great deal of proof; none, however, is offered by Mr. Balfour, who contents himself with describing the impossibility of deriving propositions of obligation from any other propositions as "an axiom". And in the second place, the quantitative axiom itself is of course applicable to the primary statement of something else than happiness as the desired end, *e.g.*, perfection: but the number of those who adopt the basis of Perfectionism, while clearly distinguishing it from that of Utilitarianism, is so small as to be safely neglected. It may thus, I think, be said that only in the utilitarian system can an extremely common individual experience of feeling be supplemented and universalised by the axiom or intuition of reason, and the "I ought" thus pass over directly to the "You ought".

According to this view, I should avoid using *rational* to mark the distinction drawn by Mr. Sidgwick between the two principles of Egoistic Hedonism. "If the Egoist strictly confines himself to stating his conviction that he ought to take his own happiness or pleasure as his ultimate end, there seems no opening for any line of reasoning to lead him to Universalistic Hedonism as a first principle. . . . When however the Egoist offers, either as a reason for his egoistic principle, or as another form of stating it, the proposition that his happiness or pleasure is Good, not only *for him* but absolutely, he gives the ground needed for such a proof. For we can then point out to him that *his* happiness cannot be a more important part of Good, taken universally, than the equal happiness of any other person." That is to say, the latter proposition is plainly irrational; but on what terms can the former be called rational? Only at the most, surely, as long as the happiness of the individual Egoist does not conflict with that of two or more others. In the extreme case of his being on a desert island, it might seem pedantic to object to calling his exclusive seeking of his own happiness rational, though even here I should prefer *not irrational*; but even in that extreme case, I should not see the

rationality of his saying that he *ought* to seek it. Waiving the objection above suggested that he could not truly feel he *ought* to in any sense distinct from he *means to*, and granting for the moment that he could so feel, what is there in point of *rationality* to distinguish that feeling from the feeling of warmth or of hunger? Is any safe ground of definition to be found for *rational*, if once one allows the extension of the word to propositions which do no more than state an individual experience, and to which no assent of others can be "rationally" expected? But waiving even this second point, supposing it allowable to call his Egoism "rational" as long as nothing but his own experience is concerned; yet as soon as the conflict of his, an individual's, happiness with that of several others is suggested to him, the foregoing considerations, if correct, seem to make it impossible that his *reason* should remain at the individualistic standpoint, whatever his conduct may do. He can no more resist the axiom that two is greater than one in a comparison of desires or ends than in the case of any other measurable subject-matter. I should say, then, that there is no shutting out such a "line of reasoning" as will "lead him," *i.e.*, his reason, "to Universalistic Hedonism"—which only exhibits under another form my previous slight divergence from Mr. Sidgwick, in emphasising the special axiomatic character and neglecting the common ethical impulse, when it is a question of fixing the real essence of the utilitarian *ought*.

And this same distinction of rationality, and so of universality, will of course mark off any utilitarian proposition from the non-moral and immoral ones which are included with it in Mr. Balfour's definition of the essence of an ethical judgment. The connexion between obligation and *rationality* (in the strict sense which I have been defending) cuts the ground from under his refutation of the connexion between the obligation of a moral law and its *universality* (in the sense that all intelligences ought to regard themselves as bound by it). He says we may dismiss this connexion, because it amounts to saying that there is a *moral law* obliging all intelligences to be bound by other moral laws, and that this law would need in turn another moral law behind it, so that we should be committed to an infinite series. But, according to my argument, the assertion that "all intelligences *ought* to regard themselves as bound" is not a *moral law* but a *scientific* assertion; provided that for "all intelligences" we substitute "all intelligences which share the primary non-ethical intuition that happiness is a desired end". The substituted words will not suggest to the Utilitarian a very large concession, part of his business being to prove that they potentially include "all"; *e.g.*, to show that the desire for one's

own or others' happiness is implicit in motives where its presence is overlooked, and to dispel prejudices which prevent the admission of this, by pointing out that the utilitarian principle produces rules of conduct identical with those approved by holders of would-be adverse principles; and so far as he succeeds, his law is universal, just because it is axiomatic and so in the strictest sense rational. And to all who share that primary intuition about happiness, the cogency of the law may be immediately asserted, however little they may have been aware of it; the universal cogency of the axiom that the whole is greater than its part, or that two is greater than one, being quite unaffected by the fact that some one has never chanced to bring it to bear on some particular subject-matter. However many people took to denying those axioms, those who still held them would still feel that every one *ought* to admit them. And this alone seems sufficient to refute another of Mr. Balfour's individualistic *dicta*, namely, that "to be bound by a moral law is exactly the same thing as to regard it as binding on you".¹

It is worth while to note in passing the point of practical difference between a state of things where each individual merely felt it to be *his* duty to make the happiness of others his end, which of course would be the utmost limit of Utilitarianism attainable on Mr. Balfour's principle, and the ideal of true Universalistic Hedonism, where, with the same feeling as to his own duty, each would feel that it was also the duty of others. The sense of solidarity and security derivable from the sense that it is incumbent on others to regard my happiness, seems to me fully as important as that probable increase of my happiness through my own altruistic impulses which has been a hundred times more dwelt on, and which of course might exist as well on Mr. Balfour's principle as on mine.

So much for the question as to the scientific and rational character of the utilitarian proposition. I pass now to my second question,—in what way can that proposition be said to be *general* and not an inference from particulars? If we recur to our former analysis, the primary *fact*, "I desire your happiness, or everybody's happiness," or "I find such happiness an end," is clearly general only in the sense of shortly summing up a number of particular cases of my experience, each of them as

¹ This *dictum*, which Mr. Balfour again puts forward as self-evident and without proof, would be still more markedly contradicted if the syllogistic conclusion above suggested, that the precepts of revealed religion ought to be obeyed, were a valid ethical basis; which depends of course on the truth of the non-ethical premiss that such religion is the voice of Omniscience. Granting that, the *universal* validity of the conclusion would remain wholly unaffected by any individual's omission to perceive it.

certain as the collective statement, which has no authority beyond their certainty; it is based on particulars just as "I find sugar sweet" is based on particulars. And as regards the supervening *axiom*, that, the happiness of an individual being an end, the more the individuals the greater the end, we have only to apply Mr. Balfour's own account of the axioms of Mathematics (p. 9), where he points out that "two hundred and forty pence and twenty shillings being each equal to a pound, are equal to one another," is one of an indefinite number of similar self-evident propositions which are described by saying that 'things which are equal to the same thing are equal to one another,' but which it would be absurd to *deduce* from that general premiss, inasmuch as the individual conclusion is to begin with as certain as the premiss. The particular cases of deciding that the greater amount of what is essentially a desired end must be acknowledged as more of an end than the lesser amount, do not derive their validity from correspondence with the formula; each is ultimate in itself.

In discussing Utilitarianism I have been confining myself so far to the simplest type of the doctrine. We may of course be called on to decide questions more difficult than the balancing of greater and lesser lumps of individual happiness, or of similar happiness enjoyed by a greater and by a lesser number; *e.g.*, the question of balancing the greater happiness of a lesser against the lesser happiness of a greater number, or the pain of some against the pleasure of others. There are, however, noteworthy gradations of difficulty in such cases, in some of which the scientific certainty seems quite attainable. For example, the assertion that for myself I would not endure a night's toothache for the sake of a day's walk in the country, is as completely a statement of psychological, *i.e.*, of scientific fact as the single terms "I like this," "I dislike that". As to the mode and degree in which pleasures and pains can be estimated and compared by the individual like *plus* and *minus* quantities, this primary psychological fact may present much that is obscure; but there is no obscurity about the fact itself that they *are* so estimated and compared, that in the experience of the individual $+ 6$ will not balance $- 7$. And when I pass on from the individual experience and say, and call on any rational person to say with me, that, taking any couple A and B out of the number who agree in the primary experience, such an amount of pleasure in A *ought not* to be purchased by such an amount of pain in B (*a fortiori* of course in a plurality of Bs) I am merely, as in our former case, supplementing a scientific fact by a scientific axiom. The obligation of admitting that the want of balance between the $+ 6$ of pleasure and the $- 7$ of

pain is independent of the question in what particular individual or individuals the pleasure and pain are exhibited, is precisely on a par with the obligation, *e.g.*, of admitting that the necessary equality in size of things equal in size to the same thing is independent of the question of what particular substance the things are made. The case of weighing the pain of one against the pleasure of several stands on different ground, since here there is no means of applying a self-evident axiom to the data of individual experience. So when I say (taking extreme cases for the sake of clearness) I would not purchase the five minutes' happiness of a thousand people by the five minutes' misery of one, or the eternal happiness of a thousand by the eternal misery of one, I cannot say that any one *ought* to agree with me with the immediate *ought* of rational intuition: I can only show that neither could one who differs from me use the *ought* to me. I should not, however, despair of supporting my opinion here by the less direct method of showing the obligation of justice to be a fair deduction from the fundamental utilitarian proposition; and then maintaining that the only way of bringing justice to bear on the case would be by confronting in turn each member of the thousand with the one whose misery would be the price of his happiness, and deciding in each case that the price is illegitimate. Even so, however, questions are easily imaginable which would admit of no precise mode of decision; as we see if we think of the infinite number of degrees between, *e.g.*, balancing the prolonged happiness of many against the minute's considerable suffering of one (where I think the former might fairly preponderate), and balancing the month's moderate cheerfulness of many against the minute's agony of one (where according to my intuition the former would kick the beam); and just in proportion as this uncertainty and probable difference of opinion exists, I should say that there is no *rational* basis for decision. This may seem to be a considerable concession to Mr. Balfour; practically, however, I doubt if it would often prove so.

On another point in Mr. Balfour's discussion, his account of the moralist's duties, a very few words will suffice; since his view here, being entirely consistent with his view of ultimate ethical propositions, is subject (if I am right) to the same modifications. Holding the essentially non-scientific and individualistic character of those propositions, he naturally holds that the moralist is concerned simply with the fact of their existence, not with the proof of their validity; and that his function is to help each man clearly to ask and answer for himself the two questions, "What do I hold to be the ultimate ends of action? and—If there is more than one such end, how do I estimate them in case of conflict?" In respect of the moral systems

whose fundamental propositions truly answer to Mr. Balfour's description, this account of the moralist's chances seems unassailable. But so far as Utilitarianism is in the strict sense rational, as above contended, its preacher *can* of course occupy himself with the proof of its validity, by getting people to apply the axiom we have been discussing to their individual intuition of happiness as an end.¹ Nor do I quite follow this sentence,—“Above all he (the moralist) must beware of substituting some rude simplification for (what may perhaps be) the complexity of Nature, by deducing (as the Utilitarians do) all subordinate rules from one fundamental principle, when, it may be, this principle only approximately contains actual existing ethical facts”. These actually existing ethical facts are, I suppose, the various ends which individuals actually regard as final. And if, after the clearing away of all confusions, you still hold to some other end than mine, I cannot of course call on you to deduce subordinate rules from my principle rather than from yours; but the actual ends accepted as ultimate are hardly so numerous as to charge me with crude disrespect for the complexity of Nature, if I show that my principle is implicitly avowed in, or is the rational extension of, yours. And as regards the deducing of subordinate rules for myself and my fellow-utilitarians, why am I to beware of it, any more than of deducing my geometry from certain intuitions and axioms which to some one else, for aught I know, are not self-evident?

My last point of difficulty is this: Mr. Balfour says (p. 354) with regard to changes of ethical system, that “what we mean, or ought to mean, by an improvement in the past, is an approach to our own standard, and since any change at all corresponding in magnitude to this in the future must involve a departure from that standard, it must necessarily be a change for the worse”. Now does he mean for the worse according to the ideas then existing in the world, or for the worse according to the view which we, with our present ideas, would take? He can hardly mean the former, since (1) there is absolutely nothing to put the relation between our successors and ourselves on any different footing from that between ourselves and our predecessors, beyond whom we think we have morally advanced; and (2) according to Mr. Balfour's own statement, a superior system of morality means one “which we should adopt if presented to us”; and as our successors may be expected at least to have knowledge of our systems, the hypothesis that they would at the same time

¹ Even a system which would deduce its fundamental principle from God's omniscience, as above suggested, gives the moralist wider scope than Mr. Balfour admits; for indirectly, at any rate, he will be occupied with the proof of his principle, in proving the truth of his non-ethical premiss.

cleave to one admittedly inferior is negatived. But if the supposed future system will only be worse than ours in the sense that we, with our present eyes, should regard it as such, I do not see, in the first place, why that need at all distress us, since it will be better than ours in the eyes of all whom it will actually concern. Mr. Balfour might agree so far, though his tone rather suggests the contrary; but a more radical objection is this. His view implies that change and development of moral systems extends of necessity to the most fundamental principles. Even of the past this is only true within limits; since much of moral philosophy has been concerned with making actual principles explicit, and reconciling apparent contradictions. But, what is more, the process has been *increasingly* of this kind; so that as regards the future I cannot see why we are driven to imagine any change of the most radical kind; why we may not regard the "approach to our standard" which has taken place in the past as likely to continue in the future, and to be more and more an approach of practice to an admitted principle. If the Utilitarian sees the history of the development of his principle to have been the gradual making explicit of the primary intuitions that happiness is desirable, and that of what is essentially desirable the larger amount is the more desirable,—what is there to suggest to him that, if once the principle were universally acknowledged and acted upon, men would begin to gravitate away towards some other principle? To suppose such a tendency seems something like supposing that if once Evolution succeeded in completely adapting species to their environment, it would then begin to reverse its operations and to tend towards the survival of the unfittest. Neither in the evolution of morality nor of physical life has the condition of stable equilibrium been reached, and so change has been perpetual. But the change in the external environment, which, so far as it is continuous, implies a *necessarily* unstable equilibrium in the results of physical evolution, has nothing corresponding to it in the moral sphere; where the changes associated with changing forms of society have followed no blindly cosmical series, but (it is surely not too much to say) have been more and more consciously related to a dimly recognised ideal. Nothing that we can conceive as happening will make happiness less of an end, which, so far as attained through social impulses, is self-confirmatory and self-propagating.

EDMUND GURNEY.

III.—VERSATILITY.

THERE is hardly any subject perhaps of equal importance in the economy of mind about which people's ideas are so vague as what we variously call Versatility, many-sidedness, width as contrasted with depth of intelligence. The psychology of the subject is far from being complete. One would look in vain in most of the text-books for a careful analysis of this peculiar attribute. Yet to understand the conditions of a phenomenon at once so uncommon and so impressive would seem to be not one of the least interesting problems of the science. Then, too, the question of the practical value of this endowment is by no means satisfactorily solved. In general it may be said that practical common-sense is wont to disparage its utility both in life and in literature. This disparagement, however, appears to be rather a protest against what is regarded as a weak sentimental admiration of something that imposes on the imagination than a reasoned judgment. It seems too to be closely connected with a cynical disbelief in the genuineness of the thing admired, a sceptical attitude of mind which is amply illustrated in familiar proverbs. This may at least be said to be true of the common English way of estimating the claims of distinguished versatility. Lastly, as is to be expected from this want of scientific precision in the current ideas of the nature and the value of versatility, the educational treatment of the subject is far from satisfactory. What the real value of breadth of culture amounts to: how far diversity of aptitude should be aimed at rather than the maximum development of the special aptitudes characterising the individual; and how such diversity is to be best secured,—are all questions which the science of education has still to solve.

In the following paper I propose to consider the subject under each of the points of view here indicated. I shall first inquire into the nature of the endowment; after this I shall investigate the grounds of its value or utility; and finally I shall say a word or two about its educational aspects.

At the very outset we must be clear as to the meaning of the term we are going to employ. In ordinary discourse the epithet 'versatile' clearly connotes something above the average or customary. It means an exceptional degree of multiform capability, or distinguishing excellence in several directions. In the scientific treatment of the subject we must of course include less marked degrees of the endowment as well. That is to say, we shall make versatility synonymous with width of faculty, or

diversity of capability in all its measures. When it is needful to bring out the higher manifestations of this power it will be best to use some phrase like 'versatile talent'.

Versatility is thus a phenomenon admitting of degrees, and it becomes a matter of importance to determine how those degrees shall be estimated. The rough and ready way of popular judgment is simply to count the number of different directions in which capability is shown. This is manifestly too vague for our purpose. A truly scientific measurement of the capability would proceed by taking into account not only the number of distinct attainments but also the heights reached in the different paths followed. This method is clearly resorted to in all the more thoughtful estimates of versatile minds. It is recognised that great height of attainment in a few lines of intellectual pursuit is equivalent to a lower degree of proficiency in a much larger number of subjects. The boy who carries off the first prize in three main subjects is reckoned a more brilliant instance of versatility than another who does very well throughout the whole range of school study. It need hardly be observed, perhaps, that in measuring degrees of proficiency in any direction originality will count as higher than merely reproductive ability, since it shows a more powerful and an independent grasp of the subject.

The exact way of measuring this mental attribute would take into consideration in addition to number and height of attainments the interval separating the different lines of pursuit. To speak mathematically the degree of a man's versatility would be regarded as a function of three variables, namely, number, height and mutual distance of the several paths of attainment. It seems clear that proficiency in two or three widely removed fields of knowledge ought to be an equivalent for proficiency in a much larger number of related subjects. Thus marked ability in classics and modern languages, or in various branches of history and literature, or again in a number of the natural sciences would hardly entitle a boy to a place among the highly versatile, whereas excellence in two subjects if sufficiently far apart, as classics and natural science, would be a ground of conferring this honour. So again, in the case of original work, striking ability in widely removed fields of labour raises a man high in the scale of versatility. The thing which astonishes us in what Mr. Morley well calls "the immense and deep-lying versatility" of Diderot is the range of subject on which he threw the searching and transforming light of his mind. Similarly we rank among the finest manifestations of versatile power the combination of original scientific and artistic power as in Lionardo or in Goethe. It may be added that when this variety of power

embraces not only thought but action the degree of versatility is still higher. Julius Caesar, at once eminent as a man of letters, a statesman, and a general, is admitted to be one of the most brilliant examples of versatile genius in the whole of history.

Looking now a little closer into the nature of the mental quality thus defined we easily see that it has much in common with what we call flexibility of mind. A versatile intellect is one that can easily bend itself in new directions. What is usually called a flexible mind is one that readily moves forward in any given line of development, that is not held back by old prejudices, but quickly accommodates itself to that transformation of ideas which progress is effecting. A versatile mind shows a like mobility in what we may call the lateral direction, that is to say, in passing from one region of ideas to another. It is pretty plain that versatility is the greater quality of the two, and may indeed be said to include the other, since the power of passing to a new domain of ideas is the supreme manifestation of the power of conceiving new ideas.

Versatility is often, by a certain looseness of thought, directly opposed to concentrativeness. More correctly it should be set in antithesis to pertinacity of mind, to the disposition of a mind to persist in old lines of activity. It may thus be said to contrast with *habit*, the force which keeps the faculties moving in the grooves traced by past activity. The relation between versatility and concentrativeness is less simple than this. It is perfectly true that many persons known as versatile manifest a decided disinclination to make any department of thought or action the object of a close and sufficiently prolonged attention. And, speaking generally, a man in whom the versatile impulse is nothing but the love of novelty in the intellectual world will, it is plain, be apt to be impatient of the delay involved in any protracted concentration of mind. But what is more correctly called versatility is the impulse to penetrate and to appropriate new tracts of intellectual territory, an impulse which doubtless includes the love of novelty but is much more than this. What gives rise to the common supposition that versatility is directly exclusive of intensity of thought is the fact that the first examples of this quality show an exceptional capability of mastering new ideas with the least amount of concentrated study. In other words the versatile mind means just the rapidly moving mind, and this rapidity of motion may quite as well be due to quickness of intellectual action in assimilating or recasting the thoughts of others, as to mental restlessness and a craving for the stimulus of novelty.

One other distinction remains to be drawn, namely between versatility and philosophic comprehensiveness. A man may

have a good deal of versatility, that is to say, readiness in assimilating the details of unlike subjects and yet not reach any large connecting views. His thought remains special and concrete, though passing over a wide area of subject. On the other hand, a large philosophic grasp of wholes does not necessarily involve a *proportionate* aptitude for mastering new details. Nevertheless the connexion between the two is a close one. The philosophic mind must have a *measure* of versatility; for the manifold parts must be separately intuited with a certain distinctness before their mutual relations are discovered. The expression 'the encyclopædic mind' seems to point to this common union of philosophic grasp of wholes and fine perception of multifarious details.

It would seem then that the essential feature of a versatile mind is the capability of wide and rapid intellectual movement from one object or idea to another, and from one order of ideas to another. And now we may go a little deeper into the psychological analysis of this capability. Versatility, it need hardly be said, is no primary or elementary attribute: it is a peculiar manifestation of intellectual capability. At the same time, like all other so-called intellectual endowments, it involves something more than intellect. It is a special combination of intellect and active impulse. And since all activity corresponds to some mode of sensibility, we may conclude that versatility involves emotional peculiarities as well. We must look at versatility on each of these sides if we would understand it thoroughly.

The most conspicuous and easily distinguished feature in what we call versatility is perhaps a facility in the command of attention, a readiness to attend, and to transfer attention in any required direction. Now, complete withdrawal of attention from one subject to another implies intense concentration; and so we see that versatility includes a certain steadiness and precision of action in the organ of attention. According to the degree of the versatility will be the rapidity and ease of the movements of attention, and the area covered by these movements. Between the heavy rustic who passes with slow cumbersome step from one subject of conversation to another, and whose powers of variation soon reach their limit, to the brilliant man of culture whose intellect flies swiftly from theme to theme, and is able to fix itself on any subject which happens to present itself, there is a whole series of grades of versatile ability. To see what this mobility of attention includes is to understand the nature of versatility.

As a mode of voluntary activity, attention will vary as the forces which sustain volition. A wide command of the field of

view and great rapidity of movement will clearly presuppose abundance of active impulse flowing in the direction of the intellectual organs, those concerned in external perception and in reflection. In the case of the man who is versatile in practical matters as well, a full flow of motor activity generally will be involved. Only when there is a powerful natural disposition to observe, note, reflect in general and with respect to any subject-matter, will there be developed a considerable range and facility of action in the organ of attention.

But this is not all. As voluntary, attention implies the presence of a motive; and so a wide range of movement, a constant energetic play of the forces of attention will include a large area of intellectual *interest*. This again seems to include two things which are naturally correlative. Of these the first is a wide and varied capability of intellectual work, facility in discriminating one thing from another, in getting at the core of a new subject, in assimilating fresh material to old in spite of great superficial dissimilarity, in reaching new points of view by means of constructive power. To attend, in the full sense, is to throw the whole mind at the moment into the attitude needed for understanding and mastering; it is at once to isolate and to conjoin. Only when this process goes on smoothly and rapidly, whatever the direction happens to be, can we look for the growth of a versatile intelligence.

Let us now pass to the second thing involved in range of intellectual interest. Capability, ease of intellectual action, will clearly imply absence of effort. But the mind that takes an unflinching delight in new intellectual conquests must have something more. It must be under the stimulus of a positive motive; the pleasures attending all varieties of intellectual work must be felt keenly and desired strongly; there must be a special intensity and purity of the intellectual satisfactions. The modest intellectual gratifications of the ordinary man are bound up with special interests determined by peculiarities of natural taste, occupation, and so on. Strictly speaking, a man who is merely a chemist or a mathematician is not swayed by a pure intellectual love of knowledge: there mingles with this feeling the special liking for the subject-matter which had its origin perhaps in a peculiar native susceptibility to a certain order of impressions, or in a peculiar bent of active energy, and which is deepened by habit and association, and that disposition to regard everything customarily associated with us as a part of ourselves. In the case of the versatile man, the mere intellectual enjoyment of conceiving ideas and penetrating to the centre of an intricate subject must be a considerable quantity. Nothing short of a pure thirst for knowledge as such, and of a

real delight in the very processes of intellection, will account for that non-personal and catholic interest in ideas which distinguishes the higher orders of versatile mind—men like Diderot, Lessing and Herder.

What may be the exact physiological equivalent of the versatile capability must, I think, be a matter of vague conjecture only. We may perhaps go as far as affirm that the versatile intelligence is correlated with a fine nervous organisation, with a complete and equal development of the various regions of the higher system, both central and peripheral, and with a peculiar fulness of nervous energy and rapidity of action throughout. And in addition to this, there would seem to be presupposed close connexions between the centres of voluntary attention and all the subordinate structures involved in the reception and reproduction of impressions.

We may now pass from the nature of versatility to the practical question of its utility.

There are two ways of estimating the value of a human attribute, in relation to the welfare of its individual possessor, and in relation to the welfare of others. The worth of versatility can be judged of in each of these ways.

Looking first at its value to the individual, we will begin with the narrowest conception of utility and ask whether mere variety of gifts brings its possessor any marked practical advantage in the business of life. That some amount of general ability is a useful thing for everybody is of course fully recognised. The father who takes the narrowest and most sordid view of the blessing of mental culture will now, half grudgingly it may be, admit the utility of a varied school discipline. But such people are wont to draw the line very low down, and they would not allow that there is any obvious practical advantage flowing from a variety of high attainments.

This estimate of the utility of versatility has, it is plain, a reference to the fact that the laws of our social life assign to each of us as our principal occupation a special kind of work. Is this estimate a just one? Does the ability to do many things excellently, and to pass from one thing to another rapidly and easily, bring its possessor no distinct practical advantages?

We will here assume provisionally, for the sake of simplicity, that the versatile man will be just as efficient in any line of pursuit for which, among others, he shows qualifications as the man who manifests a predominant bent to this one kind of occupation. Any error arising from this assumption may be corrected later on.

There is no doubt that in the case of most men the minute

subdivision of employments which characterises our present stage of social development does not leave a very wide field for the manifestation of versatile talent. Yet this kind of endowment may still count as of some moderate value. In most industrial occupations, including those of the manufacturer, and the merchant, and even the agriculturist, there is some little room for variety of knowledge in the acquisition and application of which the versatile man will reap an advantage. It is to be remembered, moreover, that what is called division of labour answers rather to a tendency than to a completed process. In all occupations, the progress of knowledge and the enlargement of the market and field of competition are continually adding to the complexity of the work to be done, and the degree of complexity often becomes considerable before the employment breaks up into subdivisions. This is illustrated in the present condition of the medical profession. It follows then that varied capability will always count for something even in the most advanced state of industry. The most conspicuous practical advantage resulting from the possession of versatile ability is that of being ready to throw up an old employment and take to a new one when circumstances make it desirable. These opportunities may occur to any man. In an old and stable society, however, they tend to become less frequent. The advantage derivable from a ready and versatile mind is more plainly seen in a comparatively new country like the United States, where the rapid and unpredictable development of fresh kinds of enterprise offers brilliant prizes to the man on the spot who can readily turn his hand to anything. It may be added, however, that the opportunities for emigration which the progress of things is introducing adds to the practical value of versatility by offering substantial advantages to the man who can most readily re-adapt himself to new surroundings, new people, and a modified form of occupation.

In these ways, then, the versatile man would in the main business of life appear to have an advantage over the man of a narrow and rigid bent of mind. But we have had to recognise that this advantage is not a very great one. And it is now to be added that a strong mental appetite for a variety of ideas and activities may easily prove a positive hindrance to that steady application of mind to one line of employment which the structure and laws of society render necessary. A powerful natural disposition to launch out in various directions, a keen consciousness of manifold capabilities, is pretty certain to interfere at times with that prolonged perseverance in one definite path of action on which success in life mainly depends.

The result of this brief inquiry is that, according to the popular

conception of ability, a preternatural degree of versatile power cannot be spoken of as highly useful to its possessor. It does not pay a man in the main business of life to cultivate to a very high point the power of transmitting attention from subject to subject, or to develop fully a number of distinct mental aptitudes. And to this extent the low opinion of many-sidedness entertained by the plain practical man is justified.

There are, however, important exceptions to this general rule. In some of the learned professions a considerable measure of versatility counts as a chief condition of success. The physician and the barrister are both required to carry their minds rapidly from one case to another; and facility in getting up new cases clearly implies just those powers of rapid withdrawal of attention and reconcentration which, as we have seen, underlie versatile ability. Again, the teacher who has to understand and control the development of very different types of mind, and to superintend a number of distinct branches of study, must, if he is to be efficient, possess a certain largeness and many-sidedness of mind. In a yet larger measure, the statesman who is called to comprehend a number of unlike practical interests, together with the sciences bearing on these, will owe his efficiency to width of knowledge and to readiness in passing to new subjects.¹

The profession of literature when undertaken as a means of livelihood illustrates the practical value of versatility in an exceptional manner. There are no doubt a few writers who can earn a livelihood by confining themselves to a particular line of work, as political journalism or fiction. But such openings are not for the many. Literature is a world in which one must be ready to seize on any opening that presents itself, to vary production according to the fluctuations of demand. In periodical literature, which is now so important a section of the whole field of letters, it is pretty plain that range of intellectual vision, a power of easily mastering new ideas, and quickness in passing from subject to subject, will prove a very considerable advantage to their possessor. The successful journalist and magazine writer is almost necessarily a versatile man.

Let us now take a somewhat larger view of utility, and include all the desirable consequences flowing to a man from the possession of versatility. In general it may be said that versatility has a much higher value in relation to the functions of life as a whole than in relation to what is called one's special business. In proportion as life becomes fuller and more complex with the

¹ As a matter of history, some of the most eminent statesmen have manifested a considerable degree of versatility outside the limits of their very wide profession.

progress of human development, the worth of this mental capability will increase.

Among the relations of life which thus grow in complexity the most important are the social. And if we inquire into the conditions of social success, and of popularity in general, it is clear that we must assign a high place to the gift of comprehending various orders of ideas, of adapting the mind easily to new impressions. The man who stands in high favour with society is commonly a good talker, and the good talker is the versatile man. For ordinary purposes the versatility need not be of a very high sort as measured by the depth of knowledge required in the different subjects of discourse. In fact a part of the prejudice against versatility may be due to the superficiality of mind of many who by help of this qualification shine in the social circle. But when the society is of the very best a high degree of versatility will give its possessor a substantial advantage. And so we find that in the periods of history in which the art of conversation has been most highly cultivated, the value of versatility has been greatest. The most brilliant period of the *salon* in Paris synchronised with the reign of the encyclopædists, and as Carlyle has well said in his interesting essay on Diderot, the man who "was known as the vividest noblest talker of his time," "was long belauded as the most encyclopædical head that ever existed".

Finally we may judge the worth of versatility to its possessor by considering it as a source of immediate personal enjoyment. Looked at in this way versatility will be admitted by all to have a real and by no means inconsiderable value. If, as Mr. Spencer says, pleasure is the concomitant of adequate function, and varies as the calibre and as the state of freshness of the structures involved, then the man of varied mental capabilities and of a high degree of energy in each line of activity, will, it is plain, be able to realise a more than average sum of fresh enjoyment. The value of a versatile mind in this aspect is indeed but the value of varied culture.

We said that the value of versatility might be estimated in relation both to the individual possessor and to others. Now if we make the ground and test of value the same in the two cases, the latter kind of value may be expected to coincide with the former. The conditions of well-being for the state are the conditions of well-being for the individual members composing it. It is a commonplace in political economy that the conditions of individual efficiency are at the same time the source of national benefit. Again it is manifest that the value of versatility as an element of social success and popularity means a

value for others besides the possessor of this quality.¹ Nevertheless we may conveniently view the two values as in a manner distinct. In inquiring into the worth of this quality to society what we have specially to consider is the area and mode of distribution of this endowment in a community. Our problem thus becomes:—To what extent is a society benefited by the presence of high average versatility, or of a limited class of highly versatile minds: and how is the problem affected by the stage of development of the society?

It is plain that a community whose individual members all possessed a high degree of natural versatility of mind would show a special facility in adapting itself to new circumstances and conditions of life. And this would constitute a real advantage more especially in the earlier and more unstable conditions of social development. A people, for example, which was frequently called on to exchange the spade for the sword, would evidently gain from the presence of a wide-spread versatility of mind. This advantage, however, would become less as social development advanced and occupations became more uniform and undisturbed.

In nearly all stages of social development the possession of a high degree of versatility by a *few* individuals must, one supposes, have been a source of benefit to the community. As soon as the several social functions became divided, and classes or castes arose, the appearance of a number of exceptional minds capable of entering into and understanding different orders of activity and interest would probably have an effect in linking together the various groups. Thus the presence in a nation of men like Cincinnatus, combining military ability with simple industrial tastes, would probably help to weld together the military and industrial interests, and so promote the solidarity and strength of the community. Such a combination of different kinds of knowledge in a few individuals would further be an advantage to a society by furnishing the conditions of efficient government and statesmanship. And this gain would certainly increase instead of decreasing as civilisation progressed.

The most important advantage flowing to society from the existence of a number of versatile minds is one which would not arise until a comparatively high stage of social development had been reached. As knowledge increases in bulk and complexity it tends, by a process analogous to the division of labour in

¹ Of course if we do not adopt the same measure of utility in the two cases there is no longer this theoretic consilience. Thus extreme subdivision of employment may be viewed as beneficial to the state, that is to say, to its material interests, and yet detrimental to individuals, that is, by unduly confining the whole pleasure of life.

material industry, to break up into separate fragments, each of which becomes the peculiar care of a band of specialists. Such a process of separation of different regions of intellectual work is of course a necessary condition (as well as result) of the higher progress of science. Yet though a benefit on the whole, it is attended by drawbacks which are becoming recognised by the most thoughtful lovers of science. These drawbacks, it is said, can only be neutralised by the formation of a field-staff, so to speak, whose special business it shall be to pass from one part of the intellectual field to another, comparing results with a view to bring all the different lines of operation into one harmonious scheme. Such services could only be achieved by men endowed with a superior measure of versatility.

We here touch on the question of the worth of versatile talent in the world of literature. We have already seen that versatility benefits the individual writer, let us now see how it benefits the public for which he writes.

The gain resulting to society from the kind of intercommunication among bands of specialists just described is a manifold one. The most conspicuous element of advantage, if not the most substantial, is that which arises from a due co-ordination and organisation of results. As we have seen, the encyclopædic co-ordinating intelligence is necessarily in a measure the versatile intelligence. Unless there were men capable of traversing different regions of research there could be no such thing as a general body of knowledge, no classification of the sciences, no doctrine of method or logic, and no philosophy.

A less obvious advantage from this occasional breaking down of the barriers between different departments of research by a few versatile minds is the improvement in the quality of a special kind of intellectual work by an infusion of extraneous activity. A foreign settler in some part of the scientific field, who has been trained in other regions of observation and reflection and is free from the hampering traditions and prejudices of a caste, will often see what the indigenous worker fails to see. As a matter of history, new light has often been thrown on some department of research by such an invasion by foreign talent. Thus Goethe, whose imagination had been mainly developed in the æsthetic contemplation of nature and in literary pursuits, was able by the force of this imagination to perceive relations of form in plants which had escaped the attention of trained botanists. And it has been urged that a man specially trained in physical science will often bring a fruitful freshness of view to the subjects of philosophy. In this way, then, different regions of research may stimulate and enrich one another's activities, and further the scientific spirit may act on, and be

reacted upon by, the literary. By this latter kind of versatile achievement, of which recent literature gives us some striking examples, the more elegant branches of literature gain in exactness of thought, while scientific exposition gains in vividness of presentation and beauty of form. So too the aims and conditions of art may be illuminated by the occasional direction of scientific minds to them; while even practical politics may be made more rational and consistent by the infusion of a little philosophically trained insight.

We are thus brought to the conclusion that versatility, including the very highest kinds, has a real utility, both for the individual possessor and also for society. And it would seem as if the whole value of this mental quality tended rather to increase than to decrease. For, though at first sight the increase of specialisation which accompanies social progress appears to leave less and less room for many-sidedness of mind, it is to be remembered that the same increasing complexity of life which necessitates this specialisation of occupation is also making severer demands on this kind of power. In the case of all of us, a larger measure of adroitness in mastering new subjects and in passing from one kind of occupation to another is a necessity continually required through the very expansion of life. Over and above this, it may be observed that there is a growing field for the highest kind of original versatile power in connecting and organising different departments of science, literature and art.

Our brief inquiry into the value of versatility of the higher kinds should help us to determine the question how far the cultivation of the endowment needs encouraging. It may be said that according to our showing versatility has only a moderate value, and that the supply of the quality may easily exceed the demand. This being so, it would be better to discourage than to encourage it.

With reference to this point it is to be borne in mind that in the very nature of the case the higher kinds of versatility must remain rare phenomena. Versatile power means manifold ability, and this, it is obvious, requires much more for its production than a special kind of ability. So far from it being likely that great versatility will become a very common possession, we have reason to suppose that it is in its nature very rigidly circumscribed by certain unknown conditions. The extreme rarity of the coexistence of other first-rate power with original ability in music may be cited as an example of these limits.

We may see in another way that this power is likely to remain something rare and distinguishing. It follows from our inquiry that the finer manifestations of this capability do not

tend to be multiplied by the action of natural selection : although in all stages of human development a moderate quantity of versatility would be an advantage to the individual and so be fixed and promoted by the action of natural selection, it does not appear that its higher degrees would in general bring so great a gain to their possessor as to be favoured in this way. The advantages occasionally arising from marked versatile talent would hardly have any effect in singling out its possessor for survival in the struggle. In other words, the action of natural selection would probably tend to keep up a moderate amount of innate versatile ability corresponding to the average variety of activity necessitated by the conditions of life, but would have little if any effect in furthering the higher developments of this endowment.

Again it is pretty plain that the utility of versatility to society would not result in a wide promotion of this kind of mental power by means of the process of natural selection. In the early stages of social development, when people would be often called on to take up new habits of life, a measure of versatility would clearly give a community an advantage in the struggle of communities, and so be further developed.¹ But this process would not be carried very far, since as civilisation advanced such transitions from one mode of life to another would become less frequent. With respect to the gain accruing to society from the presence of a few organising and co-ordinating minds, we may conjecture that the maintenance of such a band might be assisted by the action of natural selection. That is to say, those communities would be favoured in which the requisite amount of versatile talent was found. And since the development of this exceptional talent would probably have as one of its conditions the existence of a certain average degree of this quality, one may argue that to this extent the spread of versatility would be promoted by survival of the fittest. At the same time it is plain that, since the requisite number of markedly versatile minds is a very small one, this process of natural selection would apparently have no effect in making the higher developments of the power less rare.

Versatility even of the highest kinds is no doubt promoted to some extent by one kind of natural process. By the direct action of heredity it must sometimes happen that a child will be born with a plurality of natural endowments representing the special attainments of different individuals or series of in-

¹ It is probable that such re-adaptation to new conditions of social existence has been effected much more, indirectly, by means of a high degree of individual variability and a natural selection of individuals than, directly, by a selection of versatile communities.

dividuals in his divergent lines of ancestry. And this cause of innate versatility is one that will probably operate more conspicuously as human evolution advances, and consequently the chances of having a number of distinguished persons among one's progenitors increase. What the exact effect of such a principle of direct transmission would be, is a question which may well be left with ingenious workers like Mr. Galton. But even if we allow that this is a cause of versatility which is destined to operate more widely in the future, it is not probable that it will suffice to make the higher manifestations of versatility a common or even a frequent occurrence. The uncertain and apparently capricious action of the principle of inheritance with respect to single intellectual qualities offers us no room to anticipate a frequent coincidence of transmissions of distinct abilities.

It may then, I think, be pretty safely said that versatility is not a thing which at present needs discouraging, at least in our country. It might very possibly be better if we had a little more admiration for it when it happens to appear among us. It may be conceded that it is easy to make versatility the object of a foolish admiration, as something splendid and imposing; it may even be allowed that the prolonged and fruitful concentration of mind of a Newton or a Gibbon calls for more of the sentiment of moral respect than the brilliant excursions into many regions of a Diderot or a Herder. Yet, admitting all this one may contend that there is a danger, with a practical people accustomed to look at the worth of things somewhat narrowly, of not giving to a power like that of versatility its due meed of esteem.

With reference to the educational side of the subject, which may be said to touch the very first principles of the science as well as the practical details of school management, a word or two must suffice here. Our line of reflection goes to show that varied capability, and the power of throwing the mind easily into new subjects, should in every case be cultivated up to a certain point. And this, indeed, is a proposition the truth of which must be plain to everybody. The debateable question is how far school discipline should aim at the higher developments of versatile power when these conflict with the maximum progress in certain definite directions.

The practical solution of the question may be found in the fact that nature here adapts things pretty closely to the requirements of the social organism. The number of boys who show no marked preference, both as to ability and taste, for certain subjects of study, and who are as easily at home in one as in the other, is after all a very small one. Where this variety of

capability is accompanied, as it often is, by a strong natural dislike to a limited range of study, the youth might appropriately be subjected to a special regimen fitted to develop and strengthen the versatile power, always provided that this is not carried to the point of altogether discouraging habits of concentration. These would become in this way qualified for the posts in life where rapidity of insight, change in point of view, and variety of knowledge are of chief consequence. When varied ability is not accompanied by a rooted distaste for persistent direction of mind to one subject or group of subjects, the problem becomes more difficult; for in this case the teacher has to balance between two possibilities, distinction in some definite field of activity and a respectable position in a number of fields.

For the average boy, who would represent the average citizen with his fixed line of occupation, it would clearly seem false economy to endeavour to cultivate versatile power beyond a certain point. After that measure of multiform attainment has been reached, which is essential to a bare participation in the gains of culture, it should be the object of the teacher to discover the special individual aptitudes with a view to exercise and develop these to their highest possible point, care being taken throughout that the cultivation of the versatile habit of mind is not wholly neglected.

Our school and college systems, including the whole apparatus of examinations, appear to have been adapted to two classes of learner—the clever specialist and what I may call the dull indifferentist. Eminence in a narrow region of knowledge, and a comparatively humble position in a wide and diversified region, seem to have been the two goals pursued. When a man with special versatile power has gone in for Double Honours it has generally been at his own risk, and with no encouragement from tutors. This state of things is in a measure natural and just, since it is undoubtedly true as a general rule that lofty attainments in any subject presuppose a narrow circumscription of the field. Nevertheless, it is well worth inquiring whether more elasticity might not be introduced into the examination-system whereby the peculiar qualities of the versatile mind might be taken account of. Examinations like those of the Civil Service, by allowing candidates to determine the area of their studies, and by rewarding multiform distinction, do, no doubt, tend to promote the cultivation of intellectual many-sidedness. What is wanted besides is a mode of testing the range of general and extra-scientific information, and readiness of mind to master new subjects and to take up new points of view. Perhaps the art of Examination may some day prove itself equal to dealing with the subject.

JAMES SULLY.

IV.—CAUSATION AND ITS ORGANIC CONDITIONS.

III.

SCIENTIFIC analysis teaches us that the externally compelled portion of our mental presence consists immediately only of sensorial elements specifically aroused. The objectifying and further complemental amplification of these specific sensorial signals result from an activity operating within our own self, an activity by which their respective significations are discriminated and recognised through the more or less complete mental reinstatement of their usual bearings upon our individuality.

We may roughly picture this process in the likeness of the widening vortex, formed by the outflow of a fluid through a narrow opening of a vessel, involving ultimately in its commotion the entire superincumbent mass of contents.¹ The local sensory disturbance or sensorial awakening is similarly followed by a more or less extensive stirring up of the mental repose, by a spreading actuation within the resting contents of potential mind.

The special group of mental reinstatements, representing as so-called ideas or images further sensorial potentialities directly connected with actually experienced sensations, constitutes our percepts. A percept is adjudged real and correct when its ideal complement of feeling can be positively realised by placing ourselves in proper situations actually to receive the suggested feelings as veritable sensorial impressions.

Now it happens generally and very naturally that in perception the intrinsic process of reinstatement is lost sight of. Not the specifically stimulating influence that arouses the actual sensorial sign, nor the sensorial sign itself, but the whole perceptual result externalised is taken as cause of its own representation within the mental presence. Thus the entire perceptually objectified thing is hypostatised as the efficient agent which is affecting our sensibility, which in fact is forcing itself upon our attention.

¹ This figure applies with almost literal truth to the organic process underlying perception. The functional tapping of the sensory inlets by specific stimulation actually creates a centrally widening vortex of functional commotion, involving more or less of the synthetical substance (see *MIND* No. XVII.). But the loss by outflow through functional disintegration is promptly made good by reintegration, and this is exactly the specific prerogative of vitality.

The constraining force of this illusion is to be found in the circumstance that there actually subsists a connaturally pre-established harmony or correspondence between the ideal feelings forming part of a percept and the external energies or causes thereby suggested. The direct external causes which would give full actuality to the now merely ideally aroused perceptual complement lie, in truth, ready to exert their stimulating efficiencies in combination with the special sensory stimulus by which the percept has in fact been awakened. The suggested feelings are by dint of pre-arrangement premonitory of actual feelings.

Through this perceptual illusion, which projects internally awakened feelings as actualities of external causes that in truth are only potentially subsisting, everything that has its existence between the hypostatically complemented object and its mental representation remains more or less neglected. In accordance with this attitude we believe that we are perceiving exactly, or at least figuratively, what is outside of us. We are then Realists of various shades, according to the amount of modifying power which we are willing to attribute to the organic medium whereby the external thing effects its impression on the mind. Practically we are all Realists of the purest grain, overlooking habitually the entire combination of realising contrivances, and only attending to the thing or event that we are finally perceiving, as if this were entirely a foreign existence outside of us.

If through philosophical reflection we have, on the contrary, become Idealists, we cannot of course allow ourselves to transcend the sphere of mind. Finding the perfected object mentally given, we seek to account for it by constructing it out of mental elements, or by detaching it from an all-comprising mental totality. We do not admit extramental causes or contrivances at all.

The thorough Realist assumes nothing essentially qualifying between the object and its mental mirror. The thorough Idealist grants nothing beyond variously clustered or synthesised mental states, or beyond a complex mental constitution, of which the object is thought to form a part or to inhere as affection.

We, in conformity with the results of our previous research, have—unlike the Idealist—to look for all causation of mental states outside the mental presence, which to us means outside mind altogether. Unlike the Realist, we can admit as positively known only effects within the mental presence, not their external causes. These we only infer.

Our task will then simply be to find the proper attitude towards the effect-compelling forces. For through the interpreta-

tion of the effects we desire to become aware of the full range and peculiar disposition of the causative agents. This is undeniably what we always endeavour to do when we wish to explore what we are compelled to take for external. We assume the receptive mood, and place our sensory inlets in tentative relation with the surmised foreign powers. We then judge of the nature of these powers solely by the manner in which they are capable of affecting us, *i.e.*, of arousing mental states. Henceforth those powers are for us nothing more nor less than their ascertained range of specific influence upon our sensibilities.

Now it is clear that, just as the living individual naturally behaves in order to gain an accurate knowledge of the causes effecting his perceptions, so have we here designedly to behave in order to gain a full knowledge of the complex causes effecting the mental presence. We have to undertake the office of a general and impartial reagent, opening our sensibilities just as well to the impressions caused by the organic individual itself as to the impressions caused by its environment. We have to take in, under one and the same manifesting aspect, the entire combination of conditions here co-operating. In this manner the organic individual and its vital properties on the one side, and the non-vital things and occurrences surrounding it on the other side, can all be tested by one common standard. Their differences and their agreements may in this way be faithfully recorded in the sensitive medium which they are both affecting under the same conditions. Disinterested reason, sitting in judgment on the constitution and mutual relation of these uniformly viewed appearances, will perhaps, when thus impartially informed, prove competent to arrive at some valuable conclusions regarding their peculiar mode of interaction and their respective participation in the production of the mental presence.

From this point of view, which is the point of view of true science, it becomes first of all certain that the organism and its environment belong to one and the same order of nature. They affect the sensitive and observing reagent in an essentially similar manner. The differences perceived are evidently due, not to an incommensurable disparity of being, but to a varied disposition of their fundamental points of agreement. It is furthermore readily recognised that external influences, which evince themselves to the sensibility of the observer as actually perceived or legitimately imagined motions of certain actually perceived or legitimately imagined substrata, are capable of affecting the living substance as stimuli. By some inscrutable efficiency their motions seem to awaken through impact motions in the living substance. But the motions thus induced in the living substance are found to differ totally from the motions

displayed by the stimulating agents. The motions of the stimulating agents are neither translated nor transfigured into the motions of the vital substance; nor do the motor energies of such agents combine in any way with energies inherent in the living substance. Outside powers simply effect a chemical rupture in the organic material, shattering its constitution in a specific way at the points of contact. Thus far, and no farther, does the direct influence of stimuli extend.

From this plain fact, biologically proved beyond suspicion, much may be learned. Many an elaborate philosophical scheme, dispossessed thereby of its fundamental assumption, crumbles to pieces. We may rest assured that there is here no passage open through which outside powers can in any manner and shape make their entry into the living substance. What is outside remains outside for good, so far as stimulation and irritability are concerned. There is here no blending of the objective and subjective, no coalescence of external and internal components, resulting in a subject-object presentation of influences. Whatever happens inside the organism, in consequence of the stimulating clash, is due to nothing but the indwelling endowments of the living substance itself. We can therefore finally dispose of the doctrine, which assumes that outside and inside influences combine like chemical agents, the things perceived being the outcome of this mystic union. Most unmistakably the external and the internal conditions do not here coalesce, are not compounded into an effect, which represents these conditions unified. The dynamical stimuli are to the organism only excitants arousing its own specific energies. The entire vital effect is an internal response, in which the stimulus does in no way itself participate.

Accordingly, we have also to reject the very prevalent theory that outside things are reproduced inside the organism in a transfigured state. However accurate the correspondence of the living order to the stimulating order, there can result therefrom no such product as that assumed in "Transfigured Realism".¹ The properties of external existences are not in the remotest degree reproduced in the organic medium through stimulation. They can in no way impress themselves in transfigured projection. There obtains no representative relation whatever between the affecting influences and the aroused affections of

¹ Mr. Herbert Spencer, who uses the above misleading term, is himself fully aware of the incommensurability of the stimulating powers and their effects within mind. But it is an unfortunate name, and a still more unfortunate illustration, by which he endeavours to make clear the actual correspondence obtaining between the world outside the organism and its sensorial revelation within the organism.

the living substance. The stimuli in their direct effects are, on the contrary, hostile, destructive. They disintegrate the functioning material. It is only the slowly acquired power of effective resistance which enables life to confront and adequately to reflect, *i.e.*, to ward off outside infringement. It is the perfect play of subtly attuned vital reaction against most specific dynamical encroachment which renders the internal commotion consonant with the external motion. Whatever becomes inwardly revealed, as result of this awakening contest, is most certainly reality's own specific creation.

The sensitive surface presents a solid front to the impinging powers not admitting their interpenetration. Its adequate resistance is due to its high-wrought restitutive energies. Thus in full-tuned accord its restitutive beats resist the disintegrating dynamic beats, and it is in this synchronous activity, in this subtly responsive vital quivering, that lies the secret of its sensitive impressibility; but not the secret of its sensorial sensibility. The inward qualitative ring of the awakening touches is altogether dependent on pre-established molecular constitution.

The kinship of nature, so obviously obtaining between the organism and outside existences, does certainly not originate at the sensitive surface. The external powers of nature are, on the contrary, effectively repelled at the sensitive front. Where kinship obtains, it has been established by connatural evolution. Physical conditions and chemical elaboration have led, on the one hand, up to various definite modes of being outside the organism; on the other hand, up to the organic tissue in which sensibility is inherent. In proportion as the developmental conditions of the outside things have been like those of the feeling organism itself will there be found kinship of nature between them. And just in proportion as the outside things have contributed to the development of the organism will there be found adaptation of the organism to their affecting influences.

The observer has both orders before him, the vital things and the non-vital things. The vital things coming under the play of energies emanating from the non-vital things are affected thereby; specifically affected by the sundry specific energies surrounding them. These direct and specific affections, to which in the course of development the organism has become attuned, have acquired for it the significance of definite signs, by which its entire range of relationship to the signalised external existences is more or less vividly awakened. But, and this is a very essential point, the relational feelings roused by the specific sign may have their seat and fulfilment not at all at the sensitive surface, or anywhere within the region of perceptual re-

alisation, but somewhere entirely outside its domain. A most striking and urgent instance of the kind is given in the powerful and definite relational feeling, which binds the organism to its restitutive material. This evidently is of entodermic origin, and its realisation or gratification is essentially an entodermic process. The kinship with this peculiar outside existent, which actually gives significance to the sign coming from the sensitive surface, lies unmistakeably in the pre-established molecular constitution of the two related existences, the organism and its food. It does not rest in the perceptual effect of the food through the sensory inlets of the organism.

It is each time the deeply rooted play of our own nature that is set going by the definite but superficial influences of other existences. And however much this internal play may be significant, either of actually occurring inner affections within other existences, or merely of outer potentialities of the same; the matter-of-fact coincidence of what we ourselves experience, with what is actually contained in the thing observed, is exclusively due to pre-established similarity or correspondence of constitution in the realising subject and the foreign existence influencing it.

You who are now appearing within my field of vision are my percept, exteriorised by an automatic reference to the compelling powers that in reality constitute your existence. I understand the significance of your smile solely by dint of the congruity obtaining between my being and yours; a congruity brought about by connaturalness of evolution.

The sight of this flame suggests its heat, *i.e.*, its influence on my organ of sight awakens, along with visual perceptions, also the idea of heat connected with it. I am then further capable of realising as matter-of-fact this ideally suggested heat, so that it shall become an actual sensorial affection. But this is accomplished solely by dint of a pre-established correspondence between my own nature and the nature of that which constitutes a flame as a thing-in-itself.

The links binding the ideas, suggestively awakened by actual sensorial signs to the hidden potential virtues inhering in foreign existences, have been organically elaborated. They rest as acquired constitutional or structural properties in the realising subject.

The justification of this interpretation, given by the Philosophy of Organisation, must be found, first, in the organic facts actually obtaining, and then in its efficiency to explain the configurations and processes of nature as a whole. It is my endeavour to prove that the same entity which appears to us as a human organism experiences also, as an affection of its own,

the mental presence. It would almost seem as if to unsophisticated minds this proposition must appear well-nigh self-evident. Yet what a drift of revolutionary consequences is involved in its admission. To become competent to judge of such a position, philosophers must not shrink from the task of mastering the general facts of organisation. It might readily be shown that transcendental and experiential philosophies have always been, in truth, little else than a more or less correct conceptual or perceptual rendering of organic occurrences. But these occurrences were recognised only in their immediate mental effects within the region of highest organic elaboration; and thus was overlooked the entire combination of causes co-operating in the production of this highest organic region, and therewith also of its immediate effect, the mental presence.

In consideration of this import of organisation we will not refrain from casting an evolutionsal glance at the relation of the organism to its environment.

Though the influences of the environment induce all developmental changes in the living substance, yet they bring about the progressive elaboration in a very indirect way. Their immediate operation is merely to shatter in specific fashion the chemically cumulating surface of the organism. Nevertheless, it is through this functional clash of the organism and its surroundings that the vital knot with all its wondrous perplexities is tied. As regards the foreign powers, which are inferred as emitting the influences, it is rightly conjectured that their exertions in relation to the organism are purely dynamical. They act by mechanical impact, by definite dynamical beats on the surface of the living substance, disintegrating the same. In consequence, the living substance restitutes itself by force of its own intrinsic affinities, appropriating the necessary complemental material. But it does more than this. The many incident forces impinging on its surface succeed in effecting a slight resultant change in the entire combination of the chemical radical, which remains after functional disintegration. The living substance, after a second functional disturbance, is not exactly identical with the same living substance after its first functional disturbance. The disintegrating forces effect a more and more unitary rearrangement: less complete chemical disruption, more chemical commotion and readjustment. In consequence, the following saturation or restitution accomplishes the production of a higher chemical unit, of a living substance more highly elaborated.

This structural development evinces itself, on the one hand, in a greater degree of resistance to the disintegrating influences by means of more rapid restitution; on the other hand, in a more unitary co-operation of all the vital processes occurring

within the living substance. It is always an internal commotion of the living substance that is effected by the foreign influences. But this internal commotion is incited by means of specific disintegration. The specific disintegration caused by the foreign powers is followed by a specific reintegration due to the intrinsic constitution of the living substance itself.

The lower the living substance in the scale of evolution the more thoroughly do the disintegrating powers overthrow its constitutional or chemical equilibrium. The lowest organisms cannot even attain a stable or equilibrated surface. When at a higher stage of development the living substance is becoming so far elaborated as to maintain against the impinging forces the stability of its surface through prompt repair, then the internal commotion caused by the surface-disturbance is also becoming more and more regulated. At last, the surface-disturbances are found specifically attuned to the special kinds of disintegrating influences. The chemical surface-vibrations of the living substance are now synchronous with the dynamical medium-vibrations, and constitute therefore adequate signs or responses, followed by no more internal commotion than their restricted range of activity directly compels. Through more and more definite restriction and developmental specification of the general commotion of the living substance, the perceptual world is gradually wrought with growing distinctness within its sensorial susceptibility. The general sensitiveness of the vital unit becomes thus significantly determinate through the organisation of a system of specific and localised sensory relations, which sensory relations on stimulation furnish to the mental presence sensorial signs denoting the existence of specific external powers. In the highest organisms the entire surface is found variously and delicately attuned by means of specialised relational elements to the influencing powers all around.

The sensorial sign denotes the external existence, because it has been gradually elaborated by the action of that specific foreign influence up to the point of synchronous restitution, whereby in adequate response it resists the disintegrating beats. The sensory resistance, or counterbalancing of disintegration through restitution, gives to the compulsion the character of a specific and fixed functional commotion. It contains also the germ or "impression" of our idea of power so vainly sought for by Hume, and, in my opinion, so wrongly placed by many philosophers and scientists in a feeling believed to accompany the innervation of voluntary muscles. The compelling power is felt only because it is resisted, and it is felt not only in consequence of resistance experienced by muscles, but also in consequence of resistance exerted by sensory organs.

The principal truth, however, which I am endeavouring to render quite clear is, that during the evolutionary process there is no putting-together of pre-existing elements of any kind, neither of a mere sensory nor of a reflex nature. Whatever appears separate and elemental in the organic individual, and here more especially in its ectoderm, has been gradually specialised within a single living unit; has been rendered heterogeneous and concrete by the establishment of more and more specialised organic relations to specific outside influences. All these multitudinous relations are cosmical riches accruing to the one indivisible individual, complicating its organisation and contributing to the resources of its mental microcosm. Thus, at the sensory surface, the objective world makes its symbolical entry into the living substance. With specialised sensorial affections it builds up its objectified appearances, supplying the organic individual with all its wealth of knowledge. It is centripetally that our unitary being receives its discriminable and specialised affections, and on its system of organised surface-relations is dependent the development of its entire nature down to its innermost core. Through organic elaboration, starting at its points of contact with other existences, the living substance is gradually impregnated with meaning, with definite references to surrounding powers, and its consonant constitution reveals at the remotest suggestion a wide and varied expanse of such organised relations. These relations, now firmly and definitely pre-established, have been all centripetally wrought by slow degrees of specific elaboration, have with progressive subtlety and distinctiveness been welded into the unitary structure of the living substance by the persistent operation of specific outside influences.

I dwell thus emphatically and repeatedly on the structural elaboration of the living substance through peripheral influences, because once adequately recognised it renders certain the direction of the creative influx, and rescues us from the tyranny of sterile doctrines. Take, for instance, even Critical Idealism, whose aim it is to be a conciliatory form of Transcendentalism, keeping resolutely in view the import of the sense-derived material of thought. It is clear that under its assumption of a pure, intelligible Ego, irradiating all synthetical powers, progress of any kind—if at all attainable—can make its way into our world only through the same entry as the energy, on whose activity the entire value of experience is made to depend. We should then have to look for any accession to our mental capacities, not to the fructifying intercourse with the sensible world, but to the transcendent source that sustains the intelligible Ego, through whose energising influence our mind is supposed to derive all its phenomenal efficiency. If I am *a priori*

in possession of certain powers, which transfigure a meaningless medley of material into a full-fashioned universe; if it is I who impose shape and order upon nature, accomplishing this by dint of spontaneous faculties supernaturally derived; then it is certain I have to look for guidance in life only to inward inspiration.

This being undeniably so, can any serious thinker believe that it will make no difference in the fate of humanity, whether its leading minds are directed by the one or the other, by the centrifugal or the centripetal attitude towards the life-giving source? It is, therefore, above all incumbent on us to seek a firm basis for a sound theory of practice, for the systematic organisation of progress.

Exulting in the harmonised and unified wealth of our ideal world, we have nevertheless to recognise that it is an experiential and not a transcendental gift; not a gift accruing directly to mind as such, but accruing to it indirectly through organising influences.

It will very likely be pertinently remarked that the view here taken is itself transcendental and dogmatic in the highest degree. We have conceded that nothing but mental states are really given, and, notwithstanding, a whole universe of external powers is not only hypothetically conjectured, but its existence confidently postulated, and pressed into active service as the efficient source of the very mental states, from which it was a mere inference. This, certainly, seems to be not only a vicious circle, but one whose larger half is moreover formed by a pure fiction. It is well worth while earnestly to ponder over these specious objections, for they take us to the very heart of the question. I have sufficiently shown that what we really understand by a mental state is to be found only within the mental presence. The mental presence alone is actual mind. All the rest is merely potential mind. This is a fact so obvious that when once realised it can nevermore be overlooked. It necessarily involves transcendentalism and dogmatism in all philosophy. For the task is to explain the nature of the vast system of hidden potentialities, the partial and actual manifestation of which, at the time being, constitutes the mental presence. Where then are all the multifarious possessions of mind not just now consciously present? This is a supreme question, the answer to which cannot in any way be evaded. Let philosophers candidly ask themselves: Is it fairly answered by conceptually amplifying the mental presence so as to make it contain a full assortment of mere abstract signs for all mental potentialities? This, however, is exactly the account that is rendered by so many thinkers of the stupendous confluence of transcendent

powers that upholds our universe. Some, indeed, try to imagine a mental presence containing within its one conscious moment the actuality of all our mental potentialities. But this is to postulate an altogether inconceivable and incongruous entity. For our mental nature forms an enduring unit only by dint of its potential implications. Start going its potentialities, and in dense crowds the perishing manifold will hurry by; keep on with sufficient incitement, and in wild delirium the whole unitary system will dissolve into a dizzy maze of crumbling thoughts and flitting phantoms.

All the explanations of mental potentialities keeping exclusively within the sphere of mind, and resting on the desire to assimilate the hidden powers with that which appears to us most exalted, are clearly subjective fictions, having nothing outside to sustain them. The Philosophy of Organisation, on the contrary, wishing for the present to account for nothing more exalted than just our own mental potentialities, offers as explanation of them an infinitely more verifiable background of power. It does not fancifully construct an inconceivable state of existence endowing it *ad libitum*; but shows how that, which with minute distinctness is in all verity perceptually revealed to us, must, by dint of its disclosed properties, be itself the unitary being, incorporating all the wealth of potential mind. Truth has to be unswervingly followed, wherever it may lead. Surely its guidance alone can take our thought to the fountain head, whence our being mysteriously flows; to the depth of power, from which it primordially arose, and on which it now trustingly reposes, from moment to moment transcendently sustained. In this sense the Philosophy of Organisation is uncompromisingly transcendental. Kant called his system Transcendental Idealism, placing the powers and their efficient operations within the mental sphere. He gave in contradistinction the name of Transcendental Realism to that philosophical system which hypostatizes things-in-themselves as efficient causes of things in perception. The view of reality here explained may be likewise called Transcendental Realism; but with the understanding that under the causative things-in-themselves are to be reckoned nothing actually mental, but only all inferred powers, as far as they are capable of affecting the organic individual, together with all such inferred powers as constitute the organism itself.

The whole question here involved lies really in a nutshell. Kant, having chiefly the mental states as such in view, neglected the entire neural organisation lying between the skin and those parts of the central nerve-substance, which furnish to the mental presence the conceptual order. He offers to the outside powers impressible sensibility and also pure inactive

time and space, in which somehow the sense-material falls into perceptual order, so as to form appearances. Then he sets in motion his only sphere of activity, the conceptual powers, by which the passive raw-material of perception is conceptually assimilated. Instead of tracing the vital activity unifying and transforming sense-material along the entire neural organisation from periphery to centre, he reaches out from the most exalted region of the mental presence itself, and attempts at once to snatch up into it the crude products of sensory function.

We, on the contrary, do not lose sight of the organisation under the skin. Granting likewise¹ that we receive sensory impulses from outside, we endeavour *organically* to account for the marvellously varied and systematised synthesis of sense-material found accomplished within the mental presence.

The chief difficulties in the way of a common understanding are, it would seem, first the evident but mysterious subsistence somewhere of all mental potentiality as a unitary system, and secondly the unmistakeable but unexplained spontaneity, identity, and ideal self-sufficiency of the centrifugal current of personality.

The Philosophy of Organisation answers, as we have seen, the

¹To silence those who wish to make it appear that Kant reached the sphere of things-in-themselves only within mind by means of mental synthesis, complementing all mental implication by the so-called Ideas of pure reason, I will quote two passages.

Eberhard had maintained: "We may choose as we please, we arrive at things-in-themselves." Kant replies: "This exactly is the constant burden of the *Critique*." "It says the things, as things-in-themselves, give the material to empirical intuitions (they contain the ground that determines the perceptual faculty according to its sensibility), but they are not themselves the material of the same." *Werke*, Vol. I., p. 436, Ed. Rosenk.

"Is it possible to believe that Leibnitz understood under pre-established harmony the coinciding of two beings totally independent of each other in their nature, and not to be brought into communion with each other through their own powers? That would be enunciating Idealism indeed; for why should one at all assume bodies, if it is possible to view everything that occurs in the soul as effect of its own powers, which it would exert just the same when perfectly isolated? Soul, and the entirely unknown substratum of appearances, which we call bodies, are quite different beings; but the appearances themselves as mere forms of intuition dependent on the nature of the subject's soul are only perceptions. And thus the communion between intellect and sense in the same subject, according to laws *a priori*, becomes intelligible, whilst at the same time the necessary natural dependence of these laws on external things has not to be sacrificed to Idealism." Vol. I., p. 480.

These unmistakeable sentences were written seven years after the *Prolegomena*, and nine years after the first edition of the *Critique*.

A centripetal determination is here most distinctly admitted, curtailing very essentially anything like efficient causation within the sphere of subjective ideality.

first of these problems in a general way by recognising as potential mind that which perceptually appears to us as the nervous system of an organism. It answers it more exhaustively by showing how the nervous structure can form a potential system, of which the mental presence is the actuality.

Not to feel shocked, as we are so apt to be, at the apparent tangibility and familiarity of that which we declare to be the seat and substratum of mind, we have to remember how very remotely and figuratively we, in truth, become aware of it. The entity that constitutes an observed personality merely incites in specific ways—mostly through the help of foreign media—the observer's sensibility, whereupon a pre-organised system of efficiencies produces a definite appearance within his mental presence. The observed personality when, for instance, visually perceived, contributes to this phenomenal revelation nothing but an inferred complex of awakening beats, indirectly conveyed to the observer's sensitive surface by the so-called cosmic ether. Thus the nervous system, as the seat of potential mind, is but a figuration framed in a foreign mind; framed there autonomously through the agency of a foreign organisation, incited by a foreign medium. It is into this far-off depth of hidden being that recedes the veritable complex of energies, which we so confidently call a nervous system. Nevertheless we trust, and securely trust the perceptual revelation as a symbolical representation most reliable to count upon. Surely what is here so distinctly disclosed to us will give us no deceptive hints regarding the true nature of potential mind.

With regard to the compounding of mental constituents, it has been the custom hitherto to explain it, organically, by assuming a mere synergistic chiming of relational elements. A definite set of such elements—nerve-fibres and nerve-cells—functionally incited were believed to produce, by a momentary combination of their so actuated energies, all complex mental states which we experience. In MIND XVII., I have at length shown how utterly impossible it is that a number of elementary beings should concentually, by the blending of their various internal commotions, produce any kind of joint or compound effect. Nervous structure can transmit a sensorial effect only through reproduction of the effect within its own substance. A functional beat at the end of a nerve-fibre has the same sensorial value as the initial beat, only because the functioning substance at both places happens to be identical. If a number of diversely functioning nerve-fibres are found to converge centrally towards a common focus, where they terminate as separate elements, then a compound effect of their elementary energies can only be realised through an inherent

efficiency of the central substance, which they conjointly incite. The compound effect is the response of a synthetic substance, which has become attuned to the complex stimulation; and this response follows solely by dint of the powers inherent in that substance. The central substance, in which all sensory elements terminate, and in which all so-called motor elements originate, is indeed a veritable synthetic substratum with cumulative stages of comprising and representative value. It constitutes sensorially the more and more unified and epitomised effect of all incoming relational elements. So much is this the case that even the higher seated sensory organs are already in themselves structures unifying and epitomising the effects of lower sensory organs. An example of this, strikingly obvious, is given in the relation of sight to touch. For sight may be interpreted as virtual touch; touch sublimated into a widely comprehensive and subtly suggestive system of intellectualised tactile representations.

Thus the entire organic elaboration of the individual culminates in the production of its mental presence, in which the whole complex of aroused affections is found condensed into one moment of conscious realisation. In this way, peripherally incited signs, for instance, have compelling power first to reinstate through stimulative irradiation their perceptual complement, and then to reinstate also though less coercively through central representation and re-representation all their many ideally suggested responses.

Of course it is only in merest outline that we can, at present, infer what actually happens during the process of sensorial concentration, which gives rise to the peripheral influx into the mental presence. The special central arrangements are too little known as yet. But it would seem as if the time were not far distant when we shall be able accurately to fill in this general outline. Meanwhile we can with great certainty conclude as much as is here indicated. For it is obvious that all neural arrangements go to form the microcosmic focus, which we have called the mental presence. All collocations and properties of the nervous tissue are therefore to be viewed as the potentiality of the ever-resuscitated moment of conscious realisation.

One still more recondite central problem remains to be examined. What constitutes the spontaneous, identical, self-sufficient current of personality?

We are irrefragably aware that our mental states are not all compelled by energies foreign to ourselves; that from the depths of our innermost being there goes out a fulness of power to meet the inrushing throng of impressions, and to dispose of them according to ways of our own; that it is ourselves who

possess the key to the order of the phenomenal universe, referring each casual occurrence to its proper place in the vast and unitary system of things found registered in the records of our memory, nay, found imperishably ingrained in the intricacies of the vital structure, where through endless toil it has become securely and livingly organised.

Indeed, compared with the accumulated result of experience, of which our entire frame with all its vitality constitutes the condensed expression, the sundry happenings of individual life are like random whiffs of wind sounding the chords of a mighty instrument, which with its own massive swell is ever reverberating the grand harmonised sense of ever-speeding nature.

This universal sense constitutes super-individual Truth through the common inheritance of generical acquisitions, and is rendered more and more available and definite through special synthetical representations within the central substance and thereby within the mental presence. It is this capitalised unity of import that we discriminatively and testingly oppose to the particular incitements of daily life, that we moreover constructively impose on the raw material of nature. It is this organised and organising fund of cumulative power that

"Sweeps through the dull, dense world, compelling there
All new successions to the forms they wear,
Torturing th' unwilling dross that checks its flight
To its own likeness, as each mass may bear;
And bursting in its beauty and its might
From trees and beasts and men into the Heavens' light."

In various ways I have laboured to show that the fundamental occurrence and culminating point of life is not its functional manifestation; that, for instance, contraction is not the fundamental occurrence and culminating point of muscular vitality, but rather a retrograde event.¹ It is by dint of intrinsic and spontaneous energies that muscular substance expands, gathering thereby through chemical cumulation the force which it afterwards expends in contraction. Here, where we can visibly follow the entire process, we gain an unmistakeable insight into the centrifugal or creative current. It is this same intrinsically propelled current, which on every occasion maintains the identity of the living substance, restituting it after functional disintegration, and repairing its integrity after deeper mutilations. It is this regenerative current also that effects the developmental growth of the organism that brings with it all the accumulated and unified wealth of our being, preserving it intact against the shattering influences of the outside world. It is this self-

¹See a paper by the present writer in Pflüger's *Archiv* XXV., "Zur Lehre von der Muskelcontraction."

evolving current of life, which is persistingly upholding our being. In its unflagging perseverance our personality, with all its spontaneous activities, safely abides.

It must be remembered that nerve-substance is really only a very much higher elaboration of contractile substance. Its response to impinging forces has become an adequately attuned resistance. This is no longer the manifest yielding, with which contractile substance answers to stimulation. But, essentially, the process remains nevertheless the same. The foreign influences shatter the living substance, causing a more or less profound chemical rupture. A small, split-off fragment goes to form the excretions of the body. The main remaining portion of the living structure contracts if it is muscular substance. Here the contraction is the salient, and, as far as we know, the only organically efficient function. This contraction is seen by an observer as a more or less extensive mass-motion of the functioning substance. But besides this mass-motion, and corresponding to what is perceived as molecular commotion, the muscle may possibly experience in itself some dim feeling of its activity, may propagate towards the central substance elements of consciousness. At all events, it is that which is perceptually realised by an observer as mere molecular commotion that constitutes in nerve-substance the only organically efficient function. According to many positive indications this perceivable molecular or chemical stir of nerve-substance is accompanied by a peculiar inward experience, realised by the functioning substance itself. This experience we call feeling.

A feeling is an exclusively subjective incident, qualitatively incommensurable with anything inferred in the outside powers, which we assume as its excitants, or as its substratum. It is wholly the product of organic elaboration and activity, whatever this may be in itself. The world figured in feeling is therefore an organic creation. The initial sensorial responses, as well as their synthetical values realised in the central substance, are altogether incalculable revelations, manifesting a unitary life-world marvellously self-efficient with regard to the environing powers, but wholly dependent on organic structure.

In order then to form some idea in what manner the mental presence is the product of nerve-structure, we have, above all, to realise that mind is its natural and vital affection, that it is the functional actuality of its potential energies. The activity of what we perceive as nerve-centres forms the mental presence. We perceive the mind-emitting substratum and its activity as nerve-substance in molecular commotion, because it possesses also the power of thus specifically stimulating an observer, who however remains thereby totally unparticipant of the

mental presence displayed simultaneously within the observed subject.

Having now as observers allowed both the organic individual and its affecting surroundings to record their mutual relations¹ on our impartial sensibility, we are in a position to judge which part is played by each of them in the production of the final effect, the mental presence. But it was solely by interpretation of this final effect, *i.e.*, the *observer's* own mental presence, that the characteristics of all powers and their activities, *i.e.*, of all causes and their effectuations, had to be construed. We can, therefore, readily conceive what an excessively involved problem Causation really is. Indeed we need only study the very diverse opinions held by the foremost thinkers of all historical times to become aware what a Gordian knot Causation has ever proved to philosophy.

Influences external to the organism act only as stimuli upon the same, bringing into play through peripheral excitement a pre-arranged system of deep-seated relations. This awakening process furnishes to the organic individual the centripetal contents of his mental presence, from which are inferred all external existences and activities.

The symbolical figurations of this system of organically signalled occurrences may, however, prove deceptive as regards their extrinsic bearings, chiefly because all sensorial affections may also be more or less vividly awakened through stimulation taking place inside the organism. We are beset not only by a world of externally compelled suggestions, but also by a world of suggestions of exactly the same import internally originating.

In both cases the stimulated affections are more or less assimilated or neglected by the centrifugal activities, *i.e.*, by the spontaneous current which embodies the integrating power and steadfast core of our being.

EDMUND MONTGOMERY.

(*To be continued.*)

¹ Not to complicate the present difficult discussion more than necessary, I have here purposely left out of sight the effects produced by the living individual on its surroundings. Of these it will be time to treat, when on some future occasion I shall have to consider "Final Causation" from an organic standpoint.

V.—CRITICAL NOTICES.

The Philosophical System of Antonio Rosmini-Serbati translated, with a Sketch of the Author's Life, Bibliography, Introduction and Notes, by THOMAS DAVIDSON. London: Kegan Paul, 1882. Pp. cxvi, 396.

This book consisting of a summary of Rosmini's philosophy written by himself, with illustrations and enlargements interpolated by Mr. Davidson, and almost entirely drawn from Rosmini's other works, is put forward as an antidote to prevailing sensationalist, subjective, and phenomenalist systems, and claims to offer, for the first time in the history of philosophy, "a consistent theory of cognition," one that may be accepted alike by metaphysicians, scientists, and ordinary folk. In a word, it purports to be, in all essential respects, the final reconciliation of philosophy and common sense.

In an historical introduction of much original interest, Mr. Davidson endeavours to show that these two have been mainly at variance from the earliest Greek times down to our own, and that hitherto philosophy has been, in its central activity, an assiduous and not altogether unsuccessful pursuit of nonsense. Rosmini comes—*fulgor ab orienti*—to redeem us from this secular vanity and vexation; and whatever subsidiary truths past philosophy has fallen in with by the way, are gathered up in him, and in his system shine with fresh lustre. It is impossible in a short space to deal with the details of this claim. They are so multifarious. But the specific charges against the past may be summed up, for purposes of valuation and criticism, thus:—(1) From Parmenides to Aquinas, philosophy confounded subject with object, identifying thought with being, and assimilating sense to sensible things and intellect to intelligible things, with the materialistic pantheism of the Arabian Aristotelians for result. (2) From Descartes downwards, it has confounded objectivity with subjectivity, providing with Descartes "subjective persuasion" only for criterion of truth, reducing with Hume subjectivism and sensism to absurdity, with Kant making Hume's reduction systematic and positive, and with Hegel ending in spiritualistic pantheism. It would be difficult to dispute the general fairness of this impeachment. Rosmini proposes his philosophical discovery as a means of avoiding this confusion either way. He thinks he has found the sole and sufficient form of cognition. This form, unlike Kant's, is not many but one, not subjective but objective, and explains that common-sense and scientific view of things, which Reid could only refer to inexplicable instinct. This form is what he calls "ideal" or "formal" being, the "idea" or "essence of being". It is the inborn permanent "intuition" or immediate "notion of being," and is always and entirely *objective*. If the principle of knowledge is really to be found on reflection amongst the facts of consciousness, if it withstands analysis and so is an ultimate self-evident ground of knowledge, and if

observation can find no other formal element, so that this form is "the only *a priori* element" of experience; then, Rosmini will have established his position and distinction amongst philosophers. Let us, therefore, see how he gets his "ideal being," for here we shall find what is central, cardinal and distinctive in his system, and by its justification he must stand or fall.

His Ideology professes to begin without assumptions. He inwardly observes, reflects, and analyses, without assuming the accuracy of his method, which Mr. Davidson compares to attentive groping about in the dark. If the daylight is eventually reached, it will give assurance of itself, whether the way can be proved legitimate or no. So Rosmini claims to have reached, by "internal observation," what shines by its own light and is indeed the light of all our seeing.

He looks for a common element of all cognitions. Narrowing his view to the simplest percepts and concepts, with which knowledge begins, he sees that any one of these can only be had by "an internal affirmation". "To know that an entity exists, and to say to myself that it exists, are one and the same thing." When one of these spontaneous affirmations is reflected on and analysed, it is an explicit judgment, which has for its predicate the idea of being. There is thus only one *a priori* synthesis, that which affirms being of feeling. The Kantian categories or primary concepts are really secondary, and resultants of this first kind of affirmation.

"When I say to myself that there exists any particular real being or entity, I should not understand my own meaning if I did not know what entity was. Therefore the *notion of being or entity* in general must be in my mind." We have this notion of being by "intuition". "To know simply what being is, I require no such *affirmation*, but another act of the mind, which I shall call *intuition*." "To intuit being is to understand it: on the contrary, we see that our feelings cannot be understood by themselves—indeed that they begin to be understood only when we regard them in relation to being, that is, as *terms of being itself*." Sense is blind. We have but this one intuition. Kant, on the other hand, says that "through the medium of sensibility objects are given to us, and it alone furnishes us with intuitions." To deny and disprove this sentence and all its implications, may be said to be the whole business of Rosmini. Sense has no objects or intuitions. There is only one intuition of one object. That sole intuited object is "ideal being," which is itself objectivity and cognisability, and through its universality (*i.e.*, indefinite applicability, for Rosmini is a nominalist and does not otherwise understand universality) is the ideality and possibility of all other things and their knowledge. If attempt is made to displace and disparage "the notion of being," by calling it an abstraction, as if it were an after-thought arising upon reflection and through a course of reasoning, Rosmini admits that it is most abstract because in itself quite indeterminate and distinct from all its terms; but contends that it is not an abstraction in the sinister sense im-

puted, because it is a necessary constituent element of the very first and least bit of concrete knowledge. Without it, we cannot know anything. We cannot say that anything *is*, without already possessing in our knowledge the notion, meaning, or essence of being. It cannot be of subjective origin, for it first gives the distinction of subjective from objective, in giving the first idea of objectivity. If it is said that it is undefinable, that is because it is an ultimate, and the prime ground of all definition. And the same may be said of feeling. It cannot be explained to him who does not feel. Being can only be known; feeling, only felt—neither of them defined. They are alike ultimates. It cannot be a modification of the thinking subject, or “a state of consciousness,” or “the feeling of ourselves,” or “ourselves modified,” because it is necessary to the most rudimentary knowledge of those; and, besides, it is given as *not* us, but over against us as purely object. It cannot arise in reflection as the abstractest and most general representation of what is present to consciousness, because reflection adds nothing, makes nothing, but only finds what is already there and brings it into clear light. To define existence as presence in (or rather *to*) consciousness, is to assume existence beforehand. *Præ(s)-ens* presupposes *Ens*. Indeed, it is to assume being twice over, because the consciousness to which being discovers itself on reflection, already itself exists. Nor is the notion of being-in-general created in the act of direct perception, for it is a necessary element or factor of that act, and logically prior to it. In every act of knowledge it has the logical primacy. It is, therefore, a native cognition.

It is the form of intelligence, because it informs or constitutes the mind. To make any sentient a mind, you need only give it an object. So it becomes *intellective* as well as sensitive principle, by “increase of act,” and will henceforth perceive all the terms of its feeling in being.

This form is *objective*. Looking at it or into it, it takes us quite off ourselves, gives us a straight outlook, and is the pure form of externality. Here, Rosmini criticises the Kantian forms of cognition, shows that, so far as they are subjective, they are material and not formal, *à posteriori* and not *à priori*, reduces them all to the one so-called modal category of possibility, and identifies that with actuality and necessity. “The idea of indeterminate being,” as such, *i.e.*, as ideal, is both actual and necessary, and contains all that is primitive, formal and objective in the seventeen forms of Kant, amongst which Rosmini includes Time and Space.

Rosmini, unfolding his Ideology which was rolled up in his first-principle, steers a middle course between sensism and idealism. There is by the way much instructive criticism of Hegel and Fichte on the one hand, and of the English school on the other. He is almost at his best as a critic. His doctrine of self-consciousness is constructed in opposition to Fichte; his theory of perception, which is, of course, ontological in a proper sane sense, in opposition to the sensist and phenomenist. His leverage in both cases comes from the inflexible objectivity of his first principle. The inviolable and unadulterate

objectivity of the object, "ideal being," is brought out most clearly in the following passage, which also defines Rosmini's use of the correlative words, "principle" or "faculty" and "term," and shows how "object" differs from "term" *per eminentiam*; being of the activity of the intellective principle, term, and something over and above, namely object. "By *object* we understand a term seen in such a way that the seer sees neither himself nor any relation to himself." "It appears simply as being." We cannot even say it is intuited. That requires reflection. "But (on the contrary) . . . it is impossible to conceive that the felt exists, without implicitly conceiving the sentient and its act. Hence the felt is not object, but simply *term*."

The object, then, as intuited, is "separate," and requires no reflective distinction or negation to give it as object. The Ego needs not, as with Fichte and Ferrier, posit or create or know itself and the Non-Ego at the same time. Knowledge is not self-consciousness, and existence is not co-existence. Fichte fell into the fundamental error that vitiates his whole philosophy, by confounding knowledge with feeling, for feeling is always thus "double, made up of that which feels (principle), and that which is felt (term)." So, "even in the bowels of Transcendental Idealism, sensism has laid its egg". Again, when Fichte begins with the activity of thought that reflects upon itself, he has failed to observe that no reflection is an act returning upon itself, but upon another act foregoing, and consequently there must be a direct act of thought first, else reflection would regress *ad infinitum*. "No act makes us know itself. The intuition of being does not know itself." As Mr. Davidson well says, "all consciousness takes the form of judgment, and that judgment is the analysis of a synthesis formed previously in thought, but outside of consciousness". Prior to consciousness there are the intuition of being and feelings in original synthesis—the affirmation made for us by nature. "The soul affirms itself and in so doing changes itself into an Ego." We subsume self-feeling under the notion of being, and thus come to the knowledge of ourselves. This is the Rosminian genesis of the Me. In another place, he inquires how man finds himself, and gives an answer which may be summarised in this way:—(1) The act of Feeling subsumed under Being gives the sentient principle as known. (2) The act of Cognition or intuition of Being subsumed under Being gives the intelligent principle. (3) Perception, *i.e.*, synthesis of feeling and cognition, so subsumed, gives the "reasoning" unifying principle, which combines both the others in one active principle, the sensitive-intellectual principle. (4) A further reflection discovers the man to himself in the discovery that the act which discovers the reasoning activity is none other than the reasoning activity itself. *I, that say I am I, am the same I, that I say I am.* These combinations by superposition of coincident reflections, are made possible by the primitive feeling of "meity," or feeling which a man has of his own universal activity. The same activity is *felt* operating through all the reflections, and being felt, it can be

known by reference to Being. Rosmini says that this doctrine of the Me properly falls under Logic, which is the science of the art of reflection and explication.

His theory of perception resembles Reid's and Hamilton's, in as much as they are all three Natural Realists; and he uses Reid's well-known distinction between sensation and perception proper or intellectual, with hearty acknowledgment. But Reid did not see the necessity of the universal idea of being, and so his appeal to mere instinctive common sense leaves him outside of philosophy or reasoned truth, and at the same time within the fatal circle of subjective persuasion. Again, as already implied, Self-consciousness is not, as with Fichte and Ferrier, a pre-supposition of perception. These two cognitions are based on two quite different feelings—the one on a self-feeling, whose term is “proper,” the other on feelings whose terms are “foreign,” and felt as refractory and opposing elements within our feeling of self. “Ideal being” is the *form* of perception and “real being” is the *matter*. This distinction of the form and matter of knowledge is considered by Rosmini to be the only thing of permanent value produced by philosophy from Descartes to Hegel. “Ideal being,” we know. “Real being” is feeling or felt activity. Feeling can only be conceived of as activity; and, conversely, activity can only be conceived of as feeling. What is affirmed to be, is always a felt activity; and all realities are reducible to principles or terms of feeling, and these again, whilst always contra-distinguishable, are not separable, *as felt*. In other words, we cannot conceive of the felt term, as felt, apart from the feeling principle and its act of feeling. To detach the term of our feeling from our feeling of it, we must attach it to our intuition of being, and so make it an object or “thing-in-itself”. We can then perceive it in being. This is perception; and such objects or ideas formed by using feelings to determine pure being are percepts. It is the “unity of man or the simplicity of the human spirit” that compels us to bring feeling under being, and thereupon to perceive that being is one and the same as knowable and as active or felt.

But whilst we must describe the act of perception serially, we must remember that it is not a process but an immanent act, and is not voluntary but spontaneous and natural. And whilst sense is blind, we must not forget that the notion in itself, *i.e.*, taken *per impossibile* in its mere abstract indeterminateness, is empty and merely formal. It cannot be so had and held, and must not be spoken of as if it could be, or as if it were a pre-existent separate component part instead of an inseparable co-existent constituent element, or as if its logical primacy were in any way an historical priority, or as if matter and form, feeling and notion, while contradistinguishable, could ever be divorced. On the contrary, we must constantly and strenuously affirm their perfect simultaneity and co-essentiality in perception and knowledge and thought. And it must be admitted that this is a rectification of Rosmini's way of phrasing and putting his doctrine that has sometimes to be made.

This then is the core of Rosmini's theory of cognition. As Mr Davidson puts it, "All that we mean when we assert a thing to be real, is that what we feel on any particular occasion *is*. By thus placing a feeling in being, we separate it from our subjective self, and regard it as having an existence of its own." But there is an ambiguity here. Do we merely affirm that the feeling *is*, or do we affirm that it is a feeling of some *thing*? Rosmini resolves our doubt in this way. What I affirm in perception is, that "that which strikes my senses exists". Sensation has two aspects. Facing us, it is passion; facing its own ("the foreign") principle, it is action. Sundering the sensation from us by subsuming it under Being, the intellect, thus, so to speak, seeing the other side of the sensation's passivity, regards it in itself as action. But to perceive an action, as term, is to perceive its principle in act—an agent—a being-in-act; and this, if its felt term is extended, is a perceived body. Thus action is discerned in passion, agent in action, and being-in-itself or substance in agent. Every foreign term of our sense is the proper term of an active principle that lies beyond our ken, just as a second person does; and our foreign term is *felt* by its own principle, of whose activity it is the proper term (with a feeling which is of course different from what it has for us), for activity is inconceivable except as feeling. From this, Rosmini infers that all units of real being are "animate" and sentient principles.

But our immediate concern is to know how any term ever comes to be extended, and this leads us to Rosmini's doctrine of space, which completes his *Erkenntnistheorie*. "In order to constitute a sentient principle, we must conceive a primitive term of sense (*αἰσθητόν*) virtually comprehending all the special actions of feeling that such a principle can ever perform; and in man this primitive and fundamental *sensum* is his own body, sensible in space." This fundamental or organic feeling has for its expanded term an unmeasured or indefinite space, which afterwards, when it has received delimitation and determination from the manifold contacts of "extra-subjects," or other realities acting on and modifying the constant feeling through the channels of special sense, is our felt and known body. When Mr. Spencer regards "the nervous system as at all times discharging itself," Mr. Davidson considers that he is just putting forward the obverse or physiological aspect of the fundamental feeling, which is like an ocean whereof all particular feelings are waves and wavelets. Every special and local sensation is a modification or disturbance of this general pervasive and permanent one; and a "foreign force" (that is, a foreign term of feeling, or felt activity other than our own), diffusing itself in the nervous living body, which is the extended proper term of the fundamental feeling, is, when subsumed under being, known to be a foreign or external body. Allow this organic spatial feeling, says Mr. Davidson, and you can understand how, though the soul is not always conscious, it is always ready to be awakened, for this feeling is always there ready to be disturbed. And Rosmini argues that you must assume it, for no space-continuum is possible except as the term of a

simple sentient principle, which feels at once the whole and all its parts. His speculation is exceedingly fine-drawn in detail, but it is admirably resumed by Mr. Davidson in these words:—"The only way in which extension or space can be continuous, or in which each part can so involve the rest as to be separable from them only mentally, is that the unity of the parts shall be constituted by something having the form of sensibility, that is, something in which the whole is present in each assignable part. That space involves a sensitive principle is, therefore, manifest." And that principle cannot be extended, as it would then have to be the extended term or felt continuum of another principle, and so on *ad infinitum*. Obviously the same line of reasoning would apply to Time.

The *New Essay on the Origin of Ideas*, published in 1830, appears to have anticipated the teaching of Bain, Spencer, and others, regarding the genesis of the consciousness of measured space. Its theory is that "Space is at once subjective and extra-subjective. As subjective it is known through the fundamental feeling; as extra-subjective, through touch and motion." And Mr. Davidson adds, "In this way are reconciled the doctrine of Kant, who regarded space as merely subjective, and that of those psychologists who hold that it is an acquired perception, derived from the terms or, as they incorrectly say, the objects of sense."

The characteristic of Rosmini's *Logic* is its deduction of all principles of reasoning from the intuition of Being. Hence it is the second science of intuition. "Being is the object of intelligence" is "the principle of Cognition:" "That which is, is," "the principle of Identity"; and from those two, which are but the intuition of being reflected on, explicated and formulated, are derived all others. The principles of Substance and Cause are derived in this way:—"When we, intelligent beings, supply being to *sensitive perception*, we thereby form the idea of substance, that is, of a being conceived by us as existing in itself and not in another. When we supply being to the *intellectual perception* of an action, then we form the idea of cause, that is, of a substance performing an action. . . . Thus the intellect completes sensation and arrives at substance; completes perception and arrives at cause." Cause is substance in act, and as substance is always in act, substance and cause are one thing from obverse points of view. When, however, Rosmini explains the distinction between sensible qualities or accidents and substances, by saying that of these we can affirm being, while of those we cannot, unless they are united to these, he appears to assume a new potency in our intuition of being, which will not be easily granted, namely, that it gives in itself the discernment of accident from substance, letting us know what is a perceivable reality in and by itself, and what is not. It is difficult to understand how the intuition of being is also the intuition of an intrinsic order in being. But here perhaps, as in the case of "ideal being" itself, the feeling of "meity," and "the fundamental feeling," the only appeal in the last resort is to each man's introspective reflection. Does he, after due search and

analysis, find them, and find them *so*? It follows with Rosmini that cause is always metaphysical—an agent, active entity, or principle of activity; and that “physical causes” or conditions only mark the locality of the true cause.

The first proposition of the Psychology is, “The soul is felt by itself”. It is therefore the principle of feeling, and only as such, *i.e.*, as a sensitive living active principle, does Rosmini, like Aristotle, consider it the subject-matter of Psychology. The *Ego* belongs to Logic. “The human soul is an intellective and sensitive subject or principle, having by nature the intuition of being and a feeling whose term is extended, besides certain activities consequent upon intelligence and sensitivity.” The units of sense cannot find their unity in themselves, nor in any one of themselves, for one sensation cannot be aware of another; therefore, the unity of special sensations and of the body, the expanded term which contains them, must be intelligence: and this is what is meant by calling the soul (*ψυχὴ νοητικὴ*), the substantial form of the body, as Aristotle does in the famous definition of the *De Animâ*. The soul is “simple” because unconditioned by space; space, on the contrary as already demonstrated, is only possible as the felt term of a soul, its principle and condition. The soul is not thinkable in any terms of space, either as solid, surface, or point; but its simplicity means “that the whole of it is in the whole and in each of the parts”. Indivisibility and immateriality are other names for simplicity. Immortality follows from such simplicity, for the simple soul, as incomposite, cannot be corrupted or disintegrated. Also it cannot die, because it is the giver of life, and is life itself. Besides, as intelligent, its inseparable form or constitutive principle is the eternal immutable idea of being, which it intuits. Divested of the body, it will retain self-feeling and the intuition.

For all these reasons, Rosmini might equally have concluded that souls are increate and eternal, and always have been, as well as always will be; and no doubt he would have done so, if the saint had not obstructed the philosopher. And this would also hold of “the elementary souls” or “animates,” of which he thinks all nature is made up. For, if each material atom or unit is of necessity united, as its term, to a sensitive principle which constitutes its unity or atomicity; then, these sensitive principles must be eternal and indissoluble, in as much as, if they went out, their terms, that is, the whole material world, would also go to nothing; and even if a single one of them ceased to be, an equivalent of matter would be annihilated—a thing that is commonly reckoned inconceivable. But Rosmini contrives to think that in some way they might coalesce and cease to be themselves, without ceasing absolutely. He argues that, as one term makes one principle, and as there are not many spaces but one continuous space, so there must be one sensitive principle of space, a kind of *anima mundi*; and that the differentiation and individuation of sensitive principles out of this *materia prima* of souls, is effected by the introduction of new terms, *i.e.*, separate

bodies, or limited forces diffused in the single original expanded term as modifications of it. This is very ingenious; but it requires a *deus ex machinâ* to create supply and introduce the new terms; and this no doubt will be a merit with the orthodox followers of Rosmini. To others, the demiurge will appear an entity more than necessary. Moreover, if a sound view, it is evident that it applies equally to human souls, and tells against their immortality, for, when divested of their bodies, they will as sensitive principles have but one term, and therefore lapse into the *anima mundi*, while even as intellective principles, having but one object, "ideal being," they will merge in one common reason like that of Averroes—one common limbo of souls where all lie oblivious in one undistinguished heap. So, in striving to compass a theory of creation, we have obtained a theory of natural dissolution and absorption, and must again bring in the *deus ex machinâ* to sustain souls in independent being and personal continuance.

The philosophy begins to lean on the creed. Rosmini's principle of multiplication and generation is a curious corollary of what has just been discussed. When a term divides, its principle multiplies. But how can a continuous material term divide, so long as its principle is one, and how can the principle be more than one, so long as the term remains undivided?

So far our argument has gone on Rosmini's own lines, and only questioned the consistency of his psychological speculation with itself; but one cannot avoid going further and seeing and saying that there is much in these speculations that is fanciful, arbitrary and unverified, whether they are self-consistent or not. They are a kind of poetry, or ideal reconstruction and imaginative rationale, like Macvicar's, Clifford's, and Hinton's, and must be distinguished from Rosmini's valid and verifiable metaphysic. The same general remark applies more or less to the "Cosmology," "Ontology," "Natural Theology," and "Deontology," that follow, and complete the Rosminian cycle. Much in them also appears adventitious and arbitrary, and only very loosely and often artificially connected with the Ideology and Logic—much seems to be elaborated in the interest of foregone assent and adhesion to the Church-system of opinions.

In spite of laborious effort after compacted totality, and almost anxious scholastic interweaving of divisions and sub-divisions, this tail-piece is really very indifferently articulated, and drags its slow limp length along in a rather dreary and unedifying way. It is a sort of *pot-au-feu* into which Rosmini tosses the detached pieces of his Catholicism, all and sundry, with the hope that the result will be a philosophical *consommé*.

The Cosmology busies itself with the rehabilitation of the Church-dogma of creation, by means of the new-found principle of Being. All beings are contingent but one, which is eternal and necessary, because its essence or idea includes its subsistence or reality! Thus creation and creator are given at one stroke of logic. But the logic is sophistry, unless reality is to be confounded with the idea of reality.

If this cannot be, then all beings without exception are equally contingent, according to Rosmini's implied definition of contingency; and their contingency is no way distinguishable from their eternal actuality, to which, as already seen, a close following of his Ideology clearly points. A world of eternal units of being in myriad-fold interactivity—elementary souls and intellective souls—is what it indicates.

The same arguments, *ex contingentia mundi*, and from idea to reality, reappear in the Theology, and along with them a modified form of the Kantian moral argument;—all propped up and galvanised into a semblance of renewed vitality by means of "Ideal Being". This principle also supplies a new argument of its own: That eternal infinite object requires an eternal infinite subject or mind. But, as Mr. Davidson sees, this postulate is unnecessary, for Being is given to each human mind as infinite or of indefinite applicability; and, I may add, its eternity is sufficiently secured by assuming the eternity of a single finite mind, the legitimacy of which assumption is virtually granted and justified by the Ideology and Psychology. The propositions and phraseology of the Ontology, again, often make us feel that the pale shade of scholasticism is revisiting us, and the chill touch of past abstractions is upon us. There are three kinds of Being, ideal, moral, and real; and these three are one, a sort of transcendental trinity. Truth and Goodness are not relations of Being, but are themselves Being. The Supreme Good is "that which completes and perfects"; and the sense of obligation is elicited by this manifesting its intrinsic necessity to the soul. Yet even here, Rosmini is happily inconsistent; and we are sometimes allowed to see that ideal and real being are only aspects of being—*i.e.*, being as known and as felt; that "moral being" is only a relation of real beings to real, and to ideal being—to being taken as an ideal, *i.e.*, in imagined perfectness; and that this ideal is what the Supreme Good is, and that its manifested necessity which elicits obligation is simply the intrinsic and irresistible attractiveness of the ideal. "Moral being" consists, in fact, in a due regard on the part of intelligent agents for the several realisations of being according to their worth and measure. It is a certain strain and tendency of real beings endowed with intelligence and will—a kind of equity that suggests the Aristotelian principle of the Mean. "Recognise being as it is in its order," is the moral law.

Finally, the Deontology treats of what being ought to be; and is, accordingly, the science of the perfection of being, physical and intellectual as well as moral and human. In the sketch Rosmini only deals with the last. Perfection of will by will is moral perfection. But will is not discovered for us by analysis, and is not defined except as "essence of personality," which only lands us in greater obscurity. Nor is perfection defined; nor distinguished from or identified with happiness; except in a vague way in the Eudæmonology, a branch of human Deontology, which treats of the excellence of virtue, showing that it lies in *joy*, beauty, and dignity; and again in "the science of rational right," where we are taught that the rights of private property

are to be respected, because to deprive a man of his property is to cause him *pain*. This is as near as we can get to Rosmini's view of the ethical end.

The main lesson of the *Politics* is that the most powerful political means is the Roman Catholic religion; and the science that consummates Rosmini's philosophical efforts is "*Cosmopolitics*," the doctrine of the government of the universal theocratic society, that is to say, the theory and vindication of the pretensions of the papacy to spiritual and temporal supremacy!

In view of this anti-climax, it is easy to say that Rosmini would have been a better philosopher, if he had not been so good a Catholic—so extravagant and almost fanatical a lover of Mother Church. But while we have here one more illustration of how impossible it is to serve two masters well, where each claims our entire allegiance; and have once again presented to us for our bewilderment that superlative human mystery, the friendly co-habitation of devout superstition and clear-eyed reason in the chamber of a single mind; we must not let Rosmini's Ultramontanism, nor his predilection for Monotheism and Monarchy and manifold excursions in their favour, hinder our vision and appreciation of what is valid and fruitful in his thought. In trying to estimate what is true and significant, we must discharge from our view what is irrelevant and extraneous, and often inconsistent with his first principles. It has been our endeavour to give salience and pre-eminence to these. In doing so we have only followed Mr. Davidson, who by careful editing, annotation and collation of the most important passages of Rosmini's leading works, has done his best to elucidate and make prominent what it most concerns us to know in Rosmini. His silences are often as significant as his utterances; and for both he deserves the commendation of those who are able to judge of the difficulty of his task. Over and over again it is made evident to the reader, especially by what he leaves unsaid, that he is by no means ultra-Rosminian; and his occasional critical corrective and judicial notes encourage one to trust him as a fairly impartial guide. In minor matters, we have to thank him for an excellent synopsis, two indices, marginalia, and a bibliography, which go to make his work a most readable hand-book and guide to Rosmini.

Removing the ecclesiastical accretions and accommodations, the ill-fitting robes and furniture of the priest, changing so much of the terminology as is uncouth and archaic, and allowing for figurative language and an occasional poetical licence, we shall find the real and lasting Rosmini. Then, asking what is new, we must allow for some things borrowed, such as the distinction of matter and form from Kant. Asking what is quite his own truth, and will live and take effect, one may venture to say, his enucleation and exhibition of the first principle of knowledge and being. This appears to be substantially true, and to offer for the first time a way of philosophic escape from the vicious circle and unreal world of sensism, subjectivism and phenomenalism—where appearances appear to appearances without end and without beginning in being, where all is

becoming and being never is, all is appearance and no *thing* ever appears to any *one*. Doubtless, it is open to metaphysical puritans to complain that Rosmini has assumed at the outset the whole world of things and thinkers, the world of ordinary and scientific experience, and on this account to reject his entire philosophy as vitiated at the first step. Their demand is, that the individual philosopher shall produce the world by turning inside out the contents of his private consciousness in a kind of elaborate and superfine self-disembowelment. Philosophy, however, is not such construction or creation, but re-construction and explanation. And, in accepting the world as it is for common sense, and the facts of common conjoint knowledge, as the data and raw material of his rationale, or reconstruction for reflective reason, Rosmini has done no more than Kant and all other philosophers have done before him, either openly or surreptitiously. He not only does so, but may be said to specially glory in this deed, and to offer his philosophy in its main features as above all else rationalised common sense and sanity.

It is impossible to close, without paying him a last tribute, which is suggested by the sentence that ends his book. "It was as a school of humanity that philosophy was conceived by Plato." So may it be said of Rosmini. When one considers the seriousness, fervency, and encyclopædic variety and completeness of his work, it becomes more and more abundantly clear that he aimed at making philosophy a symmetrical and humane education of the individual and social spirit.

J. BURNS-GIBSON.

The Development from Kant to Hegel, with Chapters on the Philosophy of Religion. By ANDREW SETH, M.A., Assistant to the Professor of Logic and Metaphysics in the University of Edinburgh, and late Hibbert Travelling Scholar. London: Williams & Norgate, 1882. Pp. 170.

'Poor Kant,' as Dr. Hutchison Stirling somewhere calls him, has in this centenary of his masterpiece met with a good deal of friendly criticism: criticism of the kind which seems so desirable until we taste it, which has all an enemy's candour, but proves to be really less palatable for wanting his acerbity. Kant however is probably by this time indifferent to these demonstrations of affection, and sees with equanimity the structures of his speculative and ethico-religious philosophy demolished until nothing but the key-stones remain hanging precariously aloft.

The key-stones are of course the Unity of Apperception and the Categorical Imperative. These necessary facts remain as the chief positive result of Kant's speculations after all sifting and discussion. Fichte's achievement was to blend them in the conception of the Ego naturally striving to realise its own infinity. The hindrance and condition of its striving he called the Non-Ego, and so left it without much further

elucidation. Schelling took up the cause of this neglected factor, and explained it to be Nature and the antecedent in several stages of the individual Ego or Intelligence. Later he regarded Nature and Intelligence, Object and Subject, as equilibrating manifestations (one preponderating here, there the other) of Absolute Reason, from which they are evolved. Hegel found this absolute Reason too much like Spinoza's Substance, and preferred to take it not as an indifferent *prius* from which Nature and Spirit proceed, but as very Reason, identical with Nature and Spirit, and with the process of the development in which it actualises itself. To follow this process according to that natural dialectic of reason, nature, history, and ordinary thought, which Fichte first systematically utilised, was Hegel's philosophy.

Such is the briefest outline of Mr Seth's sketch, itself in outline, of the movement from Kant to Hegel. That it is not exactly new is no objection to it (there would have been grave objections had it been new); for the English reader will need to hear it pretty often before he vividly remembers it: and the present work really has a certain freshness, both because it is an account merely of the movement and therefore emphasises only the most prominent doctrines of each thinker and the relations between them, and because of the goodness and facility of the exposition itself. The style is excellent, or rather would be so but for the Germanisms which sometimes disfigure it—the least elegant of all foreign idioms that have invaded our speech. Forty or fifty years ago they were perhaps sometimes forcible; now they are always grotesque, and belong only to the inferior resources of jocosity: *e.g.*, "That the unity of rational experience is identical with the ultimate synthesis of things, goes in Hegel, of course, without saying".

The second part of the book, on the Philosophy of Religion, has greater novelty for the English reader. It contains a pretty full account of the connexion between Kant's Ethics and Religion and of his work on *Religion within the Limits of Mere Reason* (of which a translation exists, but which is very little known), and also a general view of Hegel's Philosophy of Religion. All this ought to be read with interest, especially the latter part. For the public which takes any interest in the things of the mind is now well aware of the existence amongst us of an Hegelian school, or of a large number of men who have been greatly impressed by Hegel's speculations; and it is understood that the chief reason why they prefer his mode of thinking to the tradition of these islands is that it seems more reconcilable with their religious feelings and aspirations. Whether this is really the fault of the Experiential Philosophy, or of the way in which it has usually been expounded, is worth considering: or whether it is due to impatience and unreasonable expectations on the part of those who have only studied it superficially, instead of labouring strenuously to make the best of it; or must be attributed to prepossession in favour of other systems and methods recommended perhaps by teachers justly revered. Whatever the cause, the fact is certain; and though it is very unfortunate if the Experiential Philosophy be on the whole true,

there may be some compensation from the controversy and stir of thought which are likely to result.

The use of controversy however greatly depends upon its having definite issues ; and it seems that these will no longer be the same as those that were fought over with the disciples of Kant. According to Mr. Seth the whole polemic against the psychological side of Kant's doctrine is out of date.

"It becomes unimportant," he says, "for philosophy to insist on the *à priori* as against the *à posteriori* origin of conceptions. The conceptions remain the same, though the whole philosophy of the Associationists be admitted. Indeed as regards the individual, or at least the race, the conclusion seems plain that all ideas and thoughts, without exception, have been beaten out by the slow process of experience. But the ultimate attainment of these conceptions is itself the best proof that they are involved in the structure of experience, independently of their recognition by this or that individual knower."

Nor need we dispute any more whether the method of investigation shall be *à priori* or *à posteriori*.

"The objections," says our author, "to which Hegel's synthetic or genetic mode of presentment has given rise—that his philosophy is an *à priori* system, a metaphysical cobweb spun in flagrant disregard of experience, and so forth—may be summarily dismissed, for they have their root in misconception and ignorance". "Hegelianism, it must be premised, has in the individual reflection of its author no other basis than the bit by bit experience on which empiricism builds." "It is vain to suppose the specific nature of reason can be learned otherwise than by study of the existent fact. Hegel boasts that his deductions represent 'the march of the object itself'. This is not always the case ; but where it is true, it is so simply because he has first buried himself in the object. The evolution may appear to be completed *à priori*, but its different conceptions and principles are connected by Hegel for no other reason than because the study of facts has revealed to him the bond that unites them. It would be more correct to say that in this way the true meaning of *à priori* emerges, when it is found to be identical with the ripest results of so-called *à posteriori* research."

Closely allied with this view of Hegel's method is the explanation that his Logic should not be regarded as a *præ* of Nature and Spirit.

"Hegel suggestively calls his Logic 'the kingdom of shades,' as if to hint that it is but the ghost of reality. It is probably more conducive to sober thinking to present it habitually in this way (as the ghost or abstraction of a factual universe) rather than in the *à priori* fashion which suits the Hegelian method." "Then as for what is said of the system of thought-determinations as passing over or projecting itself into Nature ; metaphor apart, these phrases merely mean that that system [of Nature] is, as every one can see, in its very notion an abstraction."

If this is the interpretation of Hegel which commends itself to his English disciples whole prairies of debatable land are at once annihilated. For every one must admit that Quality, Quantity, &c., are legitimate abstractions from experience. And to take Nature absolutely is plainly to overlook the fact of its existence in consciousness.

Mr. Seth indeed has not clearly reconciled his view of Hegel's really *à posteriori* procedure with the famous triple process of dialectic: but he gives hints toward such a reconciliation. "To Hegel," he says, "this method presented itself—when stated most simply and concisely—as the systematic recognition of the fact that there is no positive without a negative, and that the negative is yet only the path along which thought passes to a fuller positive". Now clearly the first part of this statement, that "there is no positive without a negative," may be regarded as a slightly exaggerated expression of the psychological doctrine of relativity, that all knowledge involves contrast: exaggerated, because the negative of a concept is more than any one contrast; it is the sum of possible contrasts, or the contradictory. If, however, "the negative" means any contrast, we may reconcile the dialectic with *à posteriori* procedure, by allowing an appeal to facts to select the appropriate contrast from amongst the many which dialectic indicates. Similarly at the third step of the dialectic, the attainment of a higher positive: there may be more than one possible consummation of a position and its contrast; and experience must determine which is true. As an example, let us take an application of the Hegelian method by Mr. Seth himself. Reviewing the history of opinion as to the claims of Reason and Revelation, he observes that in the middle ages Reason was regarded as subordinate to Revelation. The Enlightenment, by way of contrast or antithesis, took Reason to be supreme and Revelation an imposture. A third position is that both Reason and Revelation are normal and divine; and this, says Mr. Seth, is "occupied by the best thinkers of the nineteenth century". But another 'third position' has been suggested, namely, that what are ordinarily considered to be revelations are not intentional deceits, but natural involuntary illusions, which are often useful in checking the puerile reason of barbarians. Here then are two alternative 'third positions'; and it is for experience to choose between them.

Again, if we seek to join issue upon really fundamental doctrines it is very important to observe exactly where the controversy arises. For instance, as to the Unity of Apperception—the doctrine that the synthesis of nature and experience is in consciousness—it would be a great mistake to suppose that this is rejected by Experientialists. Mr. Spencer no doubt rejects it: but no disciple of Berkeley or Hume can do so. It is not as to the existence but as to the nature of the unity that Hegelians and Humites (if I may use these expressions) differ. The former attribute the synthetic unity to the self-activity of Reason, the latter to mere law. If the Empirical Psychology be admitted, the Humean doctrine will not be easily avoided. And, on the other hand, it is not easy to reconcile the self-activity of Reason with the assurances we often hear that the unity of apperception is nothing apart from the synthesis. This is only one form of the question as to the nature of Reason itself, and the propriety of printing it with a capital letter: for if it is self-active I think it deserves a capital. But if to take it as self-active is to make it a thing-by-itself, and if that be

absurd—if it is really only an abstraction from the facts of reasoning—to give it a capital letter is like decorating a communist with a blue ribbon.

In Ethics, too, there is probably less difficulty in reconciling the Hegelian than the Kantian view with (let us say) Mill's, since the former recognises movement and development in morals as in everything else, but here no doubt there is room for discussion; and as no one is entirely satisfied with Utilitarianism, positive contributions to ethical theory from the Hegelian point of view are sure to be received with attention and interest. As to free-will, Mr. Seth says, "the point to be grasped in the controversy is that a man and his motives are one, and that, consequently, he is in every instance self-determined". If so, no Experientialist need wish to continue the controversy.

But, apart from particular questions, it is usually supposed that there is a profound difference between German and English nations of the nature and scope of Philosophy itself. Mr. Seth however says:—"The object of Philosophy is the completed system of experience, and the object remains the same whether it be regarded *in ordine ad universum*, as a self-developing system, or *in ordine ad individuum*, as material painfully gathered and pieced together. Completeness alone is necessary to exhibit the identity." Now any Experientialist may say that; though he will of course deprecate the suggestion that any one is able at present to construe experience *in ordine ad universum*. But he will maintain that that is the regulative idea of philosophy, and hope that in a hundred thousand years some approach may be made to it. Meanwhile he addresses to the Universe the words of Fluellen:—"Ancient, I do *partly* understand your meaning".

It seems then that when both parties regard sobriety, the opposition of Hegelians and Experientialists is less than we are apt to suppose. And it is agreeable to the law of Evolution that the history of Philosophy should tend to equilibrium and harmony. It would however be unjust to Mr. Seth to call him an Hegelian: not that he would by any means repudiate that school; but there appears to be none of its definite doctrines to which he unreservedly adheres. Criticism of History he takes to be the master's chief service to philosophy. He himself criticises very impartially and trenchantly all the thinkers whom he passes in review. Kant, Fichte, Schelling are dispatched in turn. Kant on whom he dwells longest turns out to be as unsatisfactory in Ethics and Religion as in the speculative province. And if Mr. Seth will give his critical faculty free scope in relation to the last great figure of that philosophical movement, we shall soon hear some one exclaiming, 'Poor Hegel'!

CARVETH READ.

L'Hérédité Psychologique. Par TH. RIBOT, Directeur de *La Revue Philosophique*. Deuxième Édition, entièrement refondue. Paris: Germer Baillière, 1882. Pp. 417.

The new edition of M. Ribot's well-known essay has been so completely remodelled that it may almost claim to be considered as a

totally distinct work. Even the title has been altered, not without reason; and the arrangement has been largely modified in many places. The part devoted to the Causes of Psychological Heredity has been entirely removed: while on the other hand, numerous additions have been made to the remaining portions of the volume from recent monographs, and the lacunæ noted in the original treatment have been carefully filled up, especially as regards the ultimate physical basis of heredity in general. By the suppression of unnecessary detail, however, the number of pages has yet been reduced from 546 to 417, so as to check the great diffuseness of the original work. As a whole, the book is certainly much improved in its new form, both as regards style and matter. Still, even now it will hardly be so necessary or so valuable in England as in France, because it consists in large part of theories or facts drawn from Galton, Darwin, and Spencer, whose works we in this country have in our own hands. To these fundamental materials, M. Ribot has added much of his own, much too from fresh French, German, and Italian sources. But it is no disparagement to his work to say that it is neither so novel in thought nor so generally important as his *Maladies de la Mémoire* (MIND XXIV., 590), in which perhaps he did himself full justice for the first time as an original psychological thinker.

Careful comparison of the two editions shows that the alterations are numerous and judicious. As regards general tone, the author seems to accept evolutionism more fully and less hypothetically than before: and he also gives a wider range of opinion on evolutionary subjects. In the first part, on the Facts of Heredity, he has suppressed some doubtful or marvellous statements (such as that of the Polish Jew who could read any page of a closed book), and has added new examples, taken from more recent works, such as Delbœuf's researches on colour-blindness, and Helmholtz's observations on the cochlea. The chapter on heredity of memory has been largely altered in accordance with M. Ribot's matured views on that subject; and the attempt to distinguish "faculties" in the intellect has been wisely abandoned. The chapter on heredity of will has also been omitted, and a good chapter on heredity in history, on the other hand, has been added in its place, containing most of the same facts. In all this portion of the work, however, it is to be regretted that M. Ribot (following Mr. Galton) still employs numerous examples from Greek and Roman history, which can hardly be said to afford a sufficiently firm basis for scientific induction. The gossip of Herodotus, or still worse the inventive imagination of Plutarch, does not give us any certain warrant for facts about Æschylus and Sophocles; while the virulent satire of Tacitus and Suetonius must not be accepted as evidence against Nero and Agrippina. The story of Caligula's little daughter trying to tear out the eyes of her playmates, for example, is a mere bit of obvious tale-telling, such as nobody would heed for a moment if he were told it about the child of a Russian Czar or a German Emperor at the present day. Indeed, some of the facts alleged are so weak that they are likely rather to damage the argument than to strengthen it, in the eyes of waverers.

The second part, dealing with the Laws of Heredity, has undergone rather less transformation. The statistical portion, however, has been enriched by De Candolle's researches into the families of scientific men, which help to eke out Mr. Galton's investigations in the same direction. The two together utterly eliminate the possibility of mere chance. Under the head of "Exceptions to the Law of Heredity," M. Ribot gives some new extracts from a curious paper by Prof. Lemoigne of Milan, in which the chances of hereditary resemblance to either side of the parental house are mathematically formulated with much ingenuity. With regard to the question of hybridism, and the intimate manner in which paternal and maternal qualities are often mixed up in the offspring, it may be worth while to mention that among the few mulattoes whom the present writer was able to observe as a teacher in Jamaica (where he had charge for some time of the small Government College), he did not find that the most European-looking boys had by any means always the most European intelligence. Innervation seemed comparatively independent of external physique, though of course the interrelation must probably have been closer in some way or other than it appeared to his eyes.

The third part, on the Consequences of Heredity, contains some striking additions from M. Jacoby's curious book (*MIND* XXV., 597), as well as from De Candolle and others. It is also supplied with fresh material from Mr. Herbert Spencer's *Principles of Sociology*; and, indeed, the tone throughout is perhaps more decidedly Spencerian than formerly. It applies the doctrine of heredity to ethics and social science in a rapid and effective manner.

The last part gives a brief *résumé* of the principal theories of biological heredity, which M. Ribot sets down boldly as "the cause" of psychological heredity, without any fear of the idealists before his eyes. He allows, however, that since psychical phenomena are bound up implicitly in the physical phenomena of organisms, it might be juster to describe psychological heredity as a case or phase of biological heredity. He abstracts briefly Mr. Darwin's hypothesis of pangenesis; Mr. Galton's modification of that hypothesis; Mr. Spencer's theory of physiological units; and Hæckel's doctrine of perigenesis. This new portion greatly adds to the value of the work, which was left before suspended somewhat aerially without any definite physical basis.

As a whole, the book is brought well up to date in its subject, and is thoroughly clear, readable, and interesting. It holds out less promise than of old, and it performs its promise a good deal better. The old edition needed compression; now that it has been well pruned and carefully grafted with fresh stocks, it has blossomed out into an excellent and fruitful tree. It is still somewhat lacking in originality—that much one must honestly admit: but it is a careful, studious, and suggestive summing up of whatever has been best thought and best said on the important subject with which it deals. It ought certainly to do much towards popularising in France the results of the best English investigations in this direction.

GRANT ALLEN.

Die Seele des Kindes. Beobachtungen über die geistige Entwicklung des Menschen in den ersten Lebensjahren. Von W. PREYER, ord. Prof. der Physiologie an der Universität zu Jena, &c., &c. Leipzig: Grieben, 1882. Pp. xii., 424.

This work from the pen of the well-known professor of physiology at Jena is, so far as I am aware, the first systematic record of the mental development of a young child. The little work of Tiedemann though having the appearance of methodic study is not full enough to be regarded as a complete chronicle. And the same applies to the highly valuable notes recently published in England and elsewhere. Professor Preyer not only takes us over the first three years of life, noting all the chief movements of development and, what is equally important, noting the fact of no advance when it occurs, but he has gone to work in a very serious manner to explain the successive appearances. He is an enthusiastic evolutionist, and his evolutionism here stands him in good stead. To this it must be added that he displays a considerable degree of skill in psychological analysis. He has an insight into the simple mental phenomena of infant life, which is undoubtedly aided by his physiological experience and his observation of the actions of the young of the lower animals. Here and there, perhaps, the author gives too much rein to the natural impulse to interpret observed facts, and is carried into the region of doubtful hypothesis; but on the whole he keeps close to the facts, and contents himself with drawing from these pretty obvious conclusions. Thus the value of the book lies after all mainly in its record of observations. The subtlety and penetration of these are no doubt connected with the fact that the author's reflections have made him quick to see what others have not seen. Theory and observation must to some extent go on together, and while it is a commonplace that theory must proceed to build on a basis of observation, it is also true, though less obviously so, that the finest observation is guided by scientific conjecture. The present work seems to me a happy illustration of this fruitful conjunction. The great risk in the present case is due to the fact that the sketch of the infant mind is drawn from a single model, the writer's own boy. As every experienced nurse knows, young children differ enormously from the first in respect of capability and the times of appearance of the several attainments. A mere glance at the records of Tiedemann, Darwin, and M. Taine will suffice to show this. The date at which the child learns to perform so simple and necessary an action as carrying the hand to the mouth is not by any means the same in all cases. Dr. Preyer is not of course oblivious of this source of error. He seeks to guard against it by an occasional reference to other records. At the same time it is very desirable that other observers as diligent and as systematic as he should test his results. Meanwhile it may be safely said that he has given an account of early mental life which for fulness, accuracy and intelligibility is far in advance of anything that has preceded it.

A word or two may be said at the beginning respecting the author's method. He tells us that with the exception of two considerable

interruptions he occupied himself in observing his child almost every day at least three times, in the morning, at noon, and in the evening. Nor was he simply an observer: he was allowed to experiment as well. That is to say the whole training of the child was so far as possible given over to him, and all interference with his plans by the customary modes of teaching (*Dressuren*) was excluded. In this way he was able, for example, to test the child's power of remembering, by introducing impressions and afterwards seeing how far they were recalled, certain that there had been no disturbing influences at work in the meanwhile. Finally, most of the facts given here are, he tells us, the result of his own observation, the rest having been communicated to him by the child's mother, to whose intelligent cooperation he evidently owes much.

The work falls into three parts, the development of the Senses, the Will, and the Understanding. The development of Feeling is dealt with partly under the first head ("The earliest organic feelings and emotions"), and partly under the second ("Expressive movements"). The third part is mainly concerned with the early stages of speech. This distribution of the subject-matter is no doubt open to criticism from more than one point of view, yet it has a convenience of its own. Sense, movement, language may be said roughly to mark off the successive stages of the period of life here reviewed. And it is evident that the observable facts naturally fall under one of these three divisions.

The first part takes a very complete survey of the Senses from the very moment of birth, and the results reached are compared with those obtained in the case of new-born animals, as chickens and guinea-pigs. Here sight takes the lead. Sensibility to light seems present from the first. With respect to colour-discrimination no attempt was made to obtain results till towards the end of the second year. From this time careful experiments were undertaken and repeated. A number of colours were placed before the child and the names taught him. He was then asked to pick out of a number of colours a particular one, as 'red' and so on, and also to name a particular colour placed before him. The experiments appear to show conclusively that the child discriminates and recognises the colours at the red end of the spectrum sooner than the others. Yellow comes first, then red, lilac, green, and last of all blue. One may be grateful for these results and yet be surprised that Professor Preyer did not seek to test the discrimination of colours earlier, in some such way as that followed by Sir John Lubbock and others in the case of ants, &c. A very careful record is given us of the first movements of the eyes, including those of the lids. These observations bear out the conclusion that the correlated symmetrical movements have in the case of every individual to be selected from other possible combinations, though the process of selection is facilitated by a connate disposition. Professor Preyer has an ingenious theory for explaining the habit of blinking at the sudden approach of an object. This appeared distinctly on the 60th day. He dismisses the supposition that this movement is the

result of an inherited impulse of fear. The infant from the first shut its eyes on the presence of too strong light. This is an innate action. The sudden movement of an object is disconcerting and produces a disagreeable feeling just as excessive light. Accordingly we may regard the later reflex as a special form differentiated from the earlier. This is borne out, the author thinks, by the fact that all painful states of mind have a closing of the eye, either partial or complete, as their instinctive accompaniment, while pleasurable states express themselves from the first by a wide opening of the eye. With respect to the interesting subject of fixing the eyes on objects the author reaches the following conclusions. Up to the 10th day there are no movements of fixation. The child only *seems* to look at an object that happens to be opposite the eye. At the same time it can turn its head towards a source of light as the window, just as it turns its head towards the breast, through an association with pleasure. The second stage is reached on the 11th day when the child after staring at one bright object (the author's face) turns the head to another, a light, near it. The third stage is entered upon on the 23rd day when the child follows a candle, held one metre before the eyes, to the right and left, upwards and downwards, with the *eyes*, and without any movement of the head. The last stage is that in which the child is able to turn the eye towards an object, and to seek for new objects in the field. This stage is reached in the first quarter. On the 81st day the child turned its eyes seeking an object (a drinking-glass) which was emitting tones. The author has also traced the development of the sense of direction and distance. He says that in the 68th week the child still grasped at objects lying beyond his reach. It seems to me that there must be great differences here. I tried a boy of mine with an object when just six months old. If the object was held a foot or less beyond his reach he made no movement. But as soon as it was brought pretty near the accessible point he made a decided grasping movement.

Coming now to hearing we find that sensibility is very deficient for some time after birth. The infant is born deaf, owing to the condition of the end-organ; and after the removal of this impediment, discrimination of sounds may be absent for several days. With respect to the auditory sense of direction the author ascertained that the first unmistakable movements of the head in the direction of a sound occurred in the 11th week. By the 16th week the movement had attained the precision and certainty of a reflex movement. Tactual sensibility in the several parts of the bodily surface was treated very carefully shortly after birth. The author concludes from his observations that this sensibility is less just after birth than it is afterwards; and that within the first 22 hours the inequalities of sensibility at different parts on the surface, though great, are less great than they are later. The sensibility to temperature, too, is almost wanting immediately after birth, though it soon attains a considerable measure of fineness. Thus the child will bear a bath cooled down to $32\frac{1}{2}^{\circ}$ cent. without apparent diminution of pleasure, but begins to cry when water of $31\frac{1}{4}^{\circ}$

or less is used. The sense of taste is more perfect at birth than any other sense. The discrimination of quality, namely, sweet, bitter, salt and sour, is possible from the first provided sufficiently strong stimuli are employed. If weak solutions are used the tactual sensation overpowers the gustatory, and the child is indifferent. Dr. Preyer says that olfactory sensibility though present from the first is not during the first months properly detached from gustatory. In the 17th month the child opened his mouth when a hyacinth was held near his nose, and proceeded to take it to his mouth. The first odours, those of the mother's milk, are inseparably bound up with sensations of taste, and the child in this case argues, he thinks, that pleasant odours imply a pleasant taste.

Among the earliest Feelings here taken account of is that of fear. Prof. Preyer contends, with considerable force, after Darwin, that fear is instinctive in the child. The timidity of young children before small animals can only be explained as the result of inheritance. This was first noticed in the 9th month, and as late as the 33rd month the child cried in a ludicrous manner at the approach of a puppy only a week or two old. The fear of falling when the child begins to walk is also instinctive. In the 21st month all the signs of fear were shown when the child was taken close to the sea; and this timidity displayed itself when there was very little movement and noise. I cannot but think that the author is somewhat hasty in assuming (p. 106) an inherited fear of the sea. Much of children's early shrinking is undoubtedly due to a kind of shock which is given by certain things. One may easily suppose that the vast expanse of water, especially when attended by movement and the peculiar voluminous sound, would produce such an effect. And it is certain that something of children's fear of animals, especially dogs, is occasioned by shock. A boy of mine first showed very decided and strong fear, amounting to childish terror, at dogs after one of these animals, which had secretly entered the room with his mistress and ensconced himself under the table, suddenly ran out towards the child barking. 'Bow-wow!' remained for months after the type of everything new and disconcerting. When hearing a strange sound he would run to his mother and hide his face, exclaiming 'bow-wow!' He showed a dislike to worms, which he also called 'bow-wow'. I think there is no doubt that inheritance plays a part here, but something must be allowed for the mere disturbance of shock. The fact that a child may be completely upset by the mother or father donning a slight disguise seems to me to point conclusively to this. Dr. Preyer's facts on this head are interesting, but hardly full enough. There is no reference to the seemingly whimsical timidities of children towards strangers. My observations have convinced me that there are certain peculiarities of face and tone of voice which at once arouse strong fears in the child; and M. Perez and others have pointed out that young children shrink from persons dressed in black. Would Dr. Preyer say that these are cases of an inherited association?

We may now pass to the subject of Will. The author sets out with

some observations on the nature of willing and not willing, and seems to imply that inhibition since it does not lead to movement is a case of not willing. But to resist an impulse is surely something positive, and very different from the properly negative condition of inactivity. And even from a physiological point of view it may be said that self-control implies an outgoing of motor energy, which is here employed in frustrating a movement instead of in executing one. Dr. Preyer, however, allows that his views on this point are likely to appear "doctrinaire". Passing to the region of observation, he tells us that the child is not born with a will, though he is born with a disposition (Anlage) to will. He distinguishes four classes of simple movements in the child—(1) Impulsive, (2) Reflex, (3) Instinctive, and (4) Represented, of which imitative movements are the simplest type. Out of these four classes all other movements, expressional and properly voluntary, can be derived. Impulsive movements correspond to Dr. Bain's spontaneity. Among examples of these he mentions the side movement of the eyes under the lids on waking up. But Dr. Preyer makes much less of these impulsive movements than Dr. Bain. He says their number is not large. And so far from deriving volition from spontaneity in the manner of the English psychologist, he thinks that it takes its rise in the increased excitability of the centres which arises in states of distress (as hunger), and which is the innate germ of longing (Begehrungsvermögen). Dr. Preyer begins by making a careful list of reflex actions, original and acquired, and gives the date at which the latter appear. He also has some important observations on the decrease of reflex excitability with growth, and on the first appearance of a distinct inhibition of reflexes. Under instinctive movements the author deals with all those which imply in addition to a sensory peripheral stimulation a central element constituting a certain mode of feeling or "mood". Sucking is a good type of instinctive action. It takes place only when there is a certain feeling (appetite). The author here not only deals with obviously instinctive actions, as sucking, chewing, &c., but brings out the instinctive element in a number of actions commonly said to be acquired. He makes a careful study of the genesis of the movement of grasping. This takes its start in a purely impulsive movement, the aimless moving of the hands hither and thither. To this must be added the reflex action of closing the hand on an object placed in it. Then follows the instinctive action of holding fast objects laid in the hand. A further step is taken when this holding of an object is effected by the opposition of the thumb. The clear manifestation of such a purpose shows itself in the 17th to the 19th week, when the child looks at the object in his hand, and consciously and with purpose holds it fast. From the fixing of an object actually held in the hand to the seizing of an object there is but a step. Then the action of grasping has become complete. Among other (partially) instinctive movements the author includes the holding up of the head, sitting up, standing, and walking. With respect to the latter he makes the interesting observation that a child brought

up among other young children who are partly able to walk will as a rule learn to stand and walk sooner than he otherwise would do. The record of the early progress of walking, with its accompanying movements, is very full and interesting. Coming now to imitative movements, we are told by Dr. Preyer that his boy first performed an imitative movement at the end of the 15th week. He pouted his lips when his father did so immediately before him. He had long done this on his own account instinctively, and the fact of this being an imitative performance was clearly seen in its great inferiority. It was not, however, till the 7th month that attempts at imitation appeared with any great distinctness, and not till the 10th that these attempts became thoroughly successful. Towards the end of the first year imitative movements became very numerous, and showed a marked improvement in skill.

Expressive movements are dealt with in a chapter by themselves. A careful investigation is made into the history of the smile. Both smiling and laughing are original expressive movements, which appear distinctly in the first month, and serve as signs of pleasurable feeling. The laughter from tickling which occurred in the 2nd month is distinct from the other. It is a reflex movement, and characterised by a difference of sound. The author in discussing these movements of expression has occasion to refer to Darwin's well-known observations. He makes the curious remark that for German children the English naturalist's statement that infants do not shed tears before the period from the 2nd to the 4th month does not hold good. Among the movements here traced are the well-known action of shaking the head to express rejection, and of nodding to express assent or acceptance. The turning away of the head from the breast as characteristic expression of disinclination appeared as early as the 4th day. This movement remained for a time a single one (to the right or to the left), and only passed into a proper shake when the child had learned to balance the head (in the 16th week). The other action, the nodding of the head, is not original but acquired, and acquired with great difficulty. Here again the author differs from the conclusion reached by Darwin. The action of pointing is referred in an interesting way to the impulse to grasp an object. In the 8th month the child betrays his lively interest in new objects, especially those in motion, by opening the mouth, fixing the object, and stretching out the hand. At this time one can hardly say whether he wishes to seize or simply point to the object. By the 14th month the child is able to point with all its fingers at an object to which his attention is attracted. By the 90th week pointing appears as the expression of a wish, and now the one finger is stretched out. Dr. Preyer dismisses the idea that imitation assists here, and refers the action to an inherited coordination of movements, fixing an object with the eye, opening the mouth, stretching out the hand and the finger, which combination seems to have come about (so far as I understand him) owing to its importance as a means of making known, and so of satisfying the feeling of hunger. It is curious that the author does

not refer to the child's habit of touching objects with the forefinger, the other fingers being wholly or partially bent, where there is plainly no room for indicating. Might not the particular position of the fingers in the act of pointing have been brought about by its obvious advantage in the finer sorts of tactual experiment? I would add that the author seems to me greatly to under-estimate the importance of imitation in the acquisition of this action. The child has had things pointed out to him innumerable times before he reproduces the action.

From expressive movements the author passes to consider properly voluntary or deliberate (*überlegte*) movements. These do not take place within the first three months. Before motives properly so called come into play numerous motor experiences must have been acquired through the working of the centro-motor impulses, the peripheral reflex stimuli, the impulse of imitation, instinct, and the feelings, and a certain development of sense and understanding must have been reached. Even such an action as the pushing away of a chair in the 11th month and the later movements of throwing away objects must not be regarded as done with conscious intention. Such properly voluntary actions emerge very gradually out of the above-mentioned, and more particularly the instinctive movements. The development may best be traced in the progressive mastery of the movements of seizing objects, and of those concerned in taking food (using the spoon, &c.). First of all the "representative activity" of the brain must be developed. After this an interval is necessary for the association of a representation of a movement with the presentation of a desired object. The author reaches the interesting conclusion that the first deliberate movements appear about the 16th week, that is to say, at the same time that the first attempts at imitation become successful. In point of fact the author seems, so far as I understand him, to regard imitative movements as properly voluntary, or as the first stage of deliberate movements (see p. 215). Still, by speaking of the "imitative stimulus" as one of the primitive forces which prepare the way for volition, he might be taken to imply that imitation is antecedent to volition. It is odd that Dr. Preyer makes no reference to vocal imitation in this connexion. I first felt sure of calling forth responsive chuckling sounds from my boy in the 8th week. By the 9th week I could count on it with tolerable certainty. Vocal imitation seems to me to depend on an inherited impulse which is connected perhaps with an innate sociality. The growth of the will out of these rudiments is said by Dr. Preyer to consist in a double process, the separation of movements previously conjoined, and the association of others previously isolated. "The will neither coordinates alone, nor isolates alone, it does both. And, what is most frequently overlooked, it effects in each region nothing perfectly new." It will be seen from this brief sketch of the author's views that he has thrown a new light on the process of early will-development.

The third part of the volume deals with the development of the Understanding. This is mainly an account of the genesis of the child's earliest concepts, and in connexion with this a very careful

record of the progress of speech. Dr. Preyer contends vigorously that the power of forming notions manifests itself antecedently to the use of language. The facts here given add nothing to those of other observers, for example, M. Perez in his interesting volume *Les trois premières Années de l'Enfant* (MIND, XII. 546). Nobody seriously questions that the child of 9 months has a certain power of abstracting from differences and noting similarity. This is obviously implied in the recognition of individual objects under altered circumstances. But the real point is what the notion or concept exactly consists of. Dr. Preyer gives the following account of it—"The often felt, localised, sweet, warm, white fluid, which is associated with sucking, forms a representation (*Vorstellung*), and indeed one of the earliest. When now this representation has often arisen, the single perceptions necessary to its formation become associated more and more closely. If then *one* of the latter appears, the memory-images of the others arise through a concomitant excitation of the appropriate ganglion cells; this means, however, nothing else than that a concept is present. For the concept arises through a uniting of marks (*Merkmale*)" (pp. 371, 2). This seems to me to be far from clear. So far as I understand it, what is here called a 'concept' is undistinguishable from what is properly called a 'percept' in which a mass of sense-experience is aggregated (though there is as yet no conscious analysis of the properties involved), and which is the material out of which clear concepts are formed. Of much greater value is the record of articulate utterance. The author has discovered that the child forms spontaneously all the sounds, and many more besides, which it afterwards utilises in the commonly adopted speech. The order in which different sounds are learnt is not the same in all cases, and does not appear to be governed by the principle of the least effort. Dr. Preyer has endeavoured to illustrate the condition of the child during the 'lall lall' period of speech by the parallel of diseased states of the speech-centres. In doing so he finds it necessary to advance a curious hypothesis of the central speech-organs, which are regarded as consisting of distinct centres, such as sound, syllable, word, and diction centres. This particular account of the speech-centres must be estimated by the physiologist. Whatever its value, I think that the author has succeeded in pointing out an instructive analogy between the two conditions here referred to. The child's inability to reproduce sounds which it understands, to form sounds with precision, and so on, has its exact parallel among forms of cerebral disease. And he seems to be on pretty safe ground when he contends that these deficiencies in both cases imply a want of perfect connexion between the various parts of the speech-organs, "impressive, central and expressive". The author has rendered a real service to the psychologist and the educator by his elaborate and painstaking history of the child's progress in the art of speech.

JAMES SULLY.

Institutiones Philosophiæ Naturalis secundum Principia S. Thomæ Aquinatis ad usum Scholasticum accomodavit TILMANNUS PESCH, S.J. Friburgi Brisgoviae: Herder, 1880. Pp. xlix. 752.

This handsomely printed volume is the first of a series of six, entitled *Philosophia Lacensis, sive Series Institutionum Philosophiæ Scholasticæ, edita a Presbyteris Societatis Jesu in Collegio quondam B. Mariæ ad Lacum Disciplinæ Philosophicæ Professis*, and intended to set forth the philosophy of the Society of Jesus, under the name of Thomas Aquinas, whose system was recommended to the study of the Church some three years ago by the papal encyclical, familiarly known as *Æterni Patris*. The history of this series is not without a certain interest, being intimately connected with that of a struggle which has profoundly affected and is still affecting the oldest and largest organisation in Europe.

More than half a century ago, when Philosophy in Europe was at its lowest ebb, when reason was attacked on every side, by sensism, which denied its existence, criticism, which denied its validity, and Hegelianism, which held that its laws were the great obstacles to the attainment of truth; and when the Jesuits, falling in with the tendencies of the time, were trying to force on the Church a kind of materialism after the manner of Condillac, Rosmini began his efforts to restore reason to credit and to make it the basis of religious belief. The way in which he hoped to do this was by taking up the traditional philosophy of the Church in its best form, *viz.*, in that of Thomism, and so systematising, rounding and completing it by means of new light and experience derived from modern thought, as to make it triumphant over scepticism both philosophical and religious. In these efforts he was soon so successful, that the Jesuits, hoping to gain him over to their order, were ready to second him and give up what they had before been falsely calling Thomism in favour of what was really Thomism carried up to date. Soon finding, however, that Rosmini entertained purposes entirely different from theirs and that he could not be used by them, they at once changed their tactics and assumed an attitude of the bitterest hostility toward him, doing everything in their power to crush him and his works. Failing most ignominiously in their attempt to have his philosophical writings placed upon the Index, and being well aware that these contained refutations, unanswerable by reason, of much of their teaching, they tried to accomplish by private calumny what they had been unable to achieve by open warfare, namely to produce the impression that Rosmini's works were full of the worst errors of every kind, and to induce the Church to restore Thomism in such a way as to exclude Rosmini's improvements on it. During the lifetime of Pius IX. they were completely unsuccessful in the latter of these projects; but hardly had a new and more pliable Pope ascended the throne, when they applied to him for a remedy against Rosminianism, in the shape of a rehabilitation of Thomism, pure and simple, as the philosophy of the Church, and a distinct condemnation of its improved form. But the Pope's hands were tied. The Congregation of the Index had declared Ros-

mini's works to be free from censure, and this judgment could not be reversed. All that he could do, therefore, was to rehabilitate Thomism, and this he did in the encyclical *Æterni Patris*, dated August 4th, 1879. A half loaf is better than no bread, and the Jesuits, having obtained so much, at once began to flood the world with books, professing to be "*secundum principia S. Thomae Aquinatis*," but really emphasising views that are often quite as much at variance with those of St. Thomas as with those of Rosmini, against which they were directed. Among these books is the series of which the first volume now lies before us. It is a significant enough fact that, although the work literally bristles with the names of philosophers, ancient, mediæval and modern, that of Rosmini does not once occur in it.

Natural Philosophy, as understood by our author, is "science considering natural bodies, in so far as they are subject to metaphysical reasons," in other words, what German idealists call "*Naturphilosophie*," as distinguished from "*Physik*" or "*Naturwissenschaft*". It sets out by assuming the universal principles of reason, and then endeavours, by means of these, to enter into the being of things ("*universalibus rationis principiis innixa in ipsum esse rerum accuratius perquirendum incumbit*"). The author makes no attempt to justify this procedure except by calling the views of those who deny its validity plagues or pestilent poisons ("*pestis*," p. 4; "*pestiferum venenum*," p. ix), impious, atheistical, and so on, in the usual polite and charitable way which Jesuits affect. The "universal principles of reason" which he adopts, seem to be the existence of a God, in whose inscrutability the solution of all dark problems is conveniently lodged, the infallibility of the Pope, the authority of Thomas Aquinas, and the impiety of modern physicists and philosophers, who, trusting to their own reason, venture to dispute any of these principles. "Nature," we are told, "in every way declares the glory of God" (p. ix). "As in all things it is naturally ordained that some men should follow others, so it has in all time been fixed and ratified by the wisest men, that those who have excelled in the most copious knowledge of divine and human things and in the most accurate insight into the beginnings and causes of individual things, ought to be followed in the study of truth" (p. x). The Pope "has been appointed by God, *optimus, maximus*, as the teacher and master of all the peoples of the Christian world" (p. x.). On his authority, moreover, we are informed that St. Thomas has, "by himself alone rebutted all the errors of former times, and supplied the most invincible weapons for the overthrow of those which, in perpetual round, are destined to arise hereafter" (p. xi.).

These brief quotations perhaps suffice to show that the work before us has no claim to be considered philosophical. If there were such a word as *philocratic*, that would properly designate it. It is a mere attempt to justify intellectual authority, such as the Catholic Church pretends to possess. It does not, of course, follow from this that the book is without value, and, indeed, it is not. In spite of its unphilosophical purpose, its numerous false reasonings, its frequent misstatements of uncongenial doctrines, its ludicrous display of shallow

learning¹ and its malign spirit, it contains a good deal that may be read with profit. It is divided into four books. The first, which treats of "The Essence, Nature, and Principles of Bodies," is divided into six "Disputations," of which the first deals with "the concept of extension or continuity properly so called"; the second, with "the nature of bodies as externally manifested"; the third, with "the principles of bodies"; the fourth, with "the various systems relating to the constitution of bodies"; the fifth, with "nature considered in itself"; and the sixth, with "natural causes". The second book, "On the Affections of Natural Body," contains seven "Disputations," the first, "on quantity and extension"; the second, "on quality"; the third, "on motion"; the fourth, "on the infinite"; the fifth, "on place and space"; the sixth, "on the compenetrations and reduplication of bodies"; and the seventh, "on time and duration". The third book, whose subject is "The Genesis and Decay of Natural Things," contains two "Disputations," the first, "on the genesis and formation of the world"; the second, "on the generation and corruption of natural body". The subject of the fourth book, which contains but one "Disputation" is, "The Order and Laws of Nature."

This enumeration will give a general notion of the contents of the volume, which is written in rather faulty Latin, and in the driest of scholastic styles, with endless divisions and subdivisions. To point out all the false principles and reasonings which it contains would require a volume longer than itself. Two such principles vitiate it from beginning to end: first, the admission of authority in thought; second, the use of the hypothesis of an omnipotent God. The former renders philosophy unnecessary, and the latter, impossible. Of less extensive errors, the three most fatal are the confounding of the object of intelligence with the term of sense, the failure to distinguish between ideal determination and real distinction, and the identification of number with multitude. It is by means of these confusions that most of the arguments which seem to tell against the doctrines of modern science are rendered plausible. Throughout the author uses the term *object* sometimes in the Scholastic, sometimes in the Kantian, sense, apparently without any suspicion that the two differ *toto caelo*.

In spite of all these drawbacks, there is much that is valuable in the book, many subtle and sound arguments directed against sensism and subjectivism. The whole of the chapters relating to continuity, space and time are well deserving of careful study, especially by those who have allowed themselves to be entangled in the puerilities of Locke or the illogicalities of Kant. Father Pesch shows clearly that space is not a mere form of sense, and as clearly that it is not a thing.

¹ Endless examples of this might be adduced. Mr. Herbert Spencer, who is combated as one of the impious, is known only as the author of *First Principles*, and G. H. Lewes, only as the writer of the *History of Philosophy*. We are told that *exoteric* as applied to Aristotle's works means *popular*, and *esoteric*, *private*, and that the latter were read by Aristotle "to his disciples alone in the Lyceum in the forenoon". Father Pesch seems never to have heard of Bernays's *Die Dialoge des Aristoteles*.

But the impression with which one leaves the book is that any attempt to restore Scholasticism to credit with modern thinkers, unless it be infinitely more logical and more purely philosophical than this, must prove utterly abortive. Philosophy must henceforth eschew all authority, all vague hypotheses of an infinite power, and confine itself to reconstructing the world for reason out of the facts of experience as determined by the laws of being. If dogmatic religion desires to find a basis on which it may stand and meet the scrutiny of men, this must be sought in historic evidence and not in philosophy. It is a pity, therefore, that one of the most distinguished of dogmatists has declared that "dogma must conquer history". We fear the victory will be on the other side.

THOMAS DAVIDSON.

VI.—NOTES AND DISCUSSIONS.

THE TWO SCHOOLS OF PSYCHOLOGY.

THE object of the following paper is to inquire whether the difference between the two great Psychological Schools is as wide as has been generally represented and whether some mode of reconciliation (or partial reconciliation) is not possible.

Mill in his *Examination of Hamilton* described the differences between these schools as arising from the adoption of two distinct methods, one proceeding upon introspection of the actual contents of our consciousness, and the other commencing with an inquiry into the origin of our acquired ideas, the original or inexplicable facts of consciousness being on this theory only capable of detection as residual phenomena after all attempts to explain them otherwise have failed. This, he thinks, is the question at issue between Locke and Cousin, whom he puts forward as champions of the rival schools (*Examination of Hamilton*, chap. ix.). He is, I think, in error as to Locke and Cousin; but my present object is not to deal with the history of the question, but to consider it from the philosophical point of view.

Now it seems to me that neither of the methods pointed out by Mill has been or can be dispensed with, and that all that can be said of the two schools is that they have combined them in different proportions. Every philosopher must investigate the actual contents of his present consciousness. If he seeks to derive the notions of Extension or of the External World, for example, from associations between states of a more primitive character, he must commence by several assumptions as to the actual contents of our present consciousness. He must assume that it contains the notion of extension to be explained, and that it contains the several elements from which he proposes to derive it. And if the explanation is to be worth anything he must further ascertain all the leading characteristics of our actual

notion of extension, since if his explanation fails to account for any of these characteristics it is imperfect. He must likewise ascertain all the characteristics of the elements from which he seeks to derive it, otherwise he will be probably found assuming characteristics which they do not possess in order to render his theory more easily applicable. But we have no means of ascertaining what our actual ideas of extension, muscular action, &c., are except what Mill terms introspection; and to introspection, and introspection alone, Mr. Bain accordingly appeals in proof of the several kinds of discriminative sensibility in the muscular sense, which are required for his derivation of the notion of extension.¹ On the other hand no philosopher probably ever maintained that consciousness never undergoes any modification in consequence of association or experience, and that we may safely conclude that the whole of its present actual contents is original. A number of philosophers belonging to the school which Mill terms the Introspective have maintained the Berkeleyan theory of Vision and the Hutchesonian theory of Secondary Desires, both of which suppose that our present consciousness is largely modified by the influence of the Associative principle. Mill's two methods are thus in reality two different parts of the same method. Philosophers of one school may indeed have paid too little attention to questions relating to the origin of our acquired ideas, while their opponents may have neglected to investigate the actual characteristics of our ideas, and may have thus explained not what they undertook to explain but something capable of being mistaken for it. But the actual facts of consciousness can only be explained by, or resolved into, other facts of consciousness, and to the success of every explanation two things are essential—accurate knowledge of what is sought to be explained and accurate knowledge of the facts employed in the explanation; both which items of knowledge can only be derived from introspection. This being laid down in the first instance—and Cousin has laid it down very clearly in the passage referred to by Mill—it may be admitted that the explanation of mental phenomena is a higher aim of science than their mere classification and arrangement, and that every plausible effort at explanation should be favourably received by psychologists, though, owing to the peculiar difficulties of the science, it will generally be entitled in the first instance only to a very qualified acceptance. Let *a*, *b*, *c*, *d*, for instance, be four mental phenomena, of which *d* is really the resultant of the combination *abc*. Here a psychologist of ability will generally be able to give a very plausible explanation of *c*, on the assumption that *a*, *b* and *d* are ultimate, or at all events prior to *c*; and, in the absence of direct

¹ James Mill, who is regarded as one of the champions of the Empirical School, states at the end of his *Analysis of the Phenomena of the Human Mind* that what he has put forward is only *theory* in the original or literal meaning of that word, *viz.*, "viewing or observing and correctly recording the matters observed". Yet in their notes to this work J. S. Mill and Mr. Bain frequently appeal to introspection in order to correct some of his analyses.

evidence as to which of the four states first appeared in consciousness, it may be very difficult to decide between the true theory and the erroneous one.

Passing, therefore, from the difference in method to the difference in results I may remark in the first place that no *a priori* theorist now maintains that we possess knowledge or ideas prior in the order of time to experience. But it is contended that we never find that which is universal and necessary in experience, nor can it be logically deduced from experience, and therefore the universal and necessary must be the result of a mental law. So far, however, there is no difference of opinion between the adherents of the rival schools. Necessity, according to the advocates of the Experience-theory (as it has been called), is not to be found in experience, nor can it be logically inferred from experience, but on the contrary it is always the result of a mental law. But they contend that this mental law may be the law of Inseparable Association—that, through the operation of that law, necessities which did not originally exist in the mind may be generated, and may become binding on all subsequent consciousness as firmly as if they were original. It is evidently erroneous to describe such necessities as derived from experience, though that expression is sometimes carelessly employed. They result from the Laws of Association, which are purely mental laws. They presuppose uniformity in experience, indeed, for without this uniformity the association could not become inseparable; but that is the only sense in which they result from experience.

The Associationist simply lays down these uniformities in our experience as facts which he does not seek to explain, and apparently regards as ultimate. The Kantian, on the other hand, seeks to show, from the nature of our faculty of thought and from its office in the generation of experience, that experience *must* exhibit such uniformities. But here the explanation of the Associationist does not clash with that of the Kantian, except when the former seeks to explain by means of Inseparable Association operating on uniformities of experience the very principles which, according to Kant, introduce all observed uniformities into our experience. And even then the difference is not so wide as might at first appear. If Kant was asked whether *sensations* must exhibit these uniformities he would probably reply in the negative. Why, then, must *experience* exhibit them? Because experience is not a mere aggregate of sensations, but a system of sensations reduced to unity and order. The Associationist might answer, in the first place, I mean by *experience* what you mean by *sensations*; and, in the next place, the reason why experience must (on your system) present uniformities is simply that you have introduced the element of uniformity into your definition of experience.

But what Associationist at the present day would venture to reduce *all* necessities of consciousness to Inseparable Association? No one perhaps ever referred my necessary belief in the existence of my present sensations to that source. It seems to be now generally agreed that the same concession must be made in reference to the

necessary belief in the past existence of what is now represented to me in the act of memory ; and perhaps also to the belief that I who feel the present consciousness am the same person who experienced the past state which I now remember. So of the beliefs, of which I cannot divest myself, that this follows that, that this is simultaneous with that, and that this is like that. Mill would apparently concede the same ultimate necessity to the primary law of thought—the Principle of Contradiction. Original mental necessities must therefore be admitted even when it is denied that necessity is any criterion of originality ; and the problem of ascertaining the number of these original mental necessities, classifying them, and tracing out their consequences, must therefore be regarded as an important one by every cultivator of the science. Moreover it is now maintained in many quarters, following Mr. Herbert Spencer, that the experience and habits of thought of our ancestors for a great number of generations past may be influential in producing mental necessities as well as our own personal experience and habits of thought, in which case the former necessities will evidently be original to the men of the present generation and will exert an influence in their minds from the first. The theory of ancestral experience and association in fact recognises the existence of *a priori* truths and seeks to explain them. If all mental necessities could be explained by inseparable association generated by our own personal experience and habits of thought, the ancestral theory would be wholly out of place. Another explanation, too, of original necessities of thought is offered or rather accepted by Mill in the note to p. 88 of the 4th Edition of his *Examination*.¹ It is that, since the imagination probably employs the organism in its representations, what is originally unrepresentable in consequence of organic laws must be originally unimaginable. This explanation excludes the Association-theory and in fact differs from that of the *a priori* school only in the same way that the theory of Latent Mental Modifications differs from that of Unconscious Modifications of the Nerves or Unconscious Cerebration.

Since the time of Kant many philosophers of the *a priori* school would admit that no synthetical judgments (which alone afford us real information) can be derived from the mere comparison of the thoughts or concepts involved in them and that to perceive their truth a reference must in some way or other be made to the sensibility or faculty of intuition. The judgment or proposition, Two right lines cannot enclose a space, for example, cannot be arrived at by any analysis of the notions of a right line and of the number two. The lines must be drawn in intuition, real or imaginary, before the truth of the judgment is perceived ; and the immediate object of consciousness is always individual. Hence it follows—and is generally conceded—that we do not originally perceive the truth of *a priori* judgments in their general forms but only in particular instances. Instead of perceiving at once that no pair of right lines will enclose a

¹ This explanation was in fact my own suggestion, but I think I may fairly refer to Mill's acceptance of it in the note in question.

space, we perceive that this pair and this pair and this pair will not do so. That necessary truths are thus originally cognised not in their full generality, but in the particulars or rather singulars that come under them, is distinctly maintained, for instance, both by Hamilton and by Mansel. The former is doubtless expressing his own sentiments when he says (*Reid's Works*, p. 177, note): "On the supposition of the mind virtually containing, antecedent to all experience, certain universal principles of knowledge in the form of certain necessities of thinking, still it is only by repeated and comparative experiment that we compass the certainty, on the one hand, that such and such cognitions cannot but be thought, and are therefore, as necessary, native generalities; and on the other that such and such cognitions may or may not be thought, and are therefore, as contingent, factitious generalisations." Again Mansel says (*Prolegomena Logica*, p. 92, Second Edition): "But, granting that thought has its laws, how are these to be discovered? Only by reflection on the phenomena of actual thinking.

To learn how we think, we must in the first place actually think; and a multitude of successive acts of thought will be necessary before we become aware that certain conditions are contingent and limited to some of these acts only, and others necessary and present in all." And therefore he proceeds to say that, if experience is taken in a wide sense, all knowledge is derived from experience. Cousin teaches the same doctrine perhaps even more clearly.¹ But how does this differ from the explanation of the Law of Contradiction offered by Mill, namely, that it is "one of our first and most familiar generalisations from experience. The original foundation of it, I take to be, that belief and disbelief are two different mental states, excluding one another. This we know by the simplest observation of our own minds" (*Logic* II. vii. 5)? Both parties admit that as a matter of fact the mental phenomena exhibit the uniformity in question but that to detect it as an uniformity and to express it in general terms, observation of a number of successive mental acts is necessary. Both apparently admit also that this uniformity existed from the first and was observed as soon as our observation took that particular direction: and this being so, the law in question has as good a right to be called a law of mind as gravitation has to be called a law of matter. And in fact, in the mental phenomena it is scarce possible to distinguish between universality and necessity. If we never in fact imagine an exception to a general law of mind, the natural inference is that an exception is unimaginable. Nor is very much added to the weight of the argument by making unsuccessful efforts to imagine an exception. When we try to imagine two right lines enclosing a space, for example,

¹ There are still however many philosophers of the *a priori* school who maintain that we can know (synthetical) properties of objects by means of our ideas or concepts of them. But even in this respect there is a curious approximation between the two schools in what I regard as a common error. For Mill and Mr. Bain admit the alleged fact and offer an explanation of it based on the conditions required for the formation of these ideas or concepts.

and fail in the effort, all that is really proved is that the particular pairs of lines which we imagined would not do so. It is still supposable that among the infinite number of pairs which we are capable of imagining, there is one pair which would enclose a space if we tried it, and the conclusion that no such pair is imaginable is really inductive—an inference from a number of particular instances to the whole class which contains them. That Mill saw the virtual identity of the two theories may I think be inferred from his treatment of the Law of Contradiction in his *Examination of Hamilton*, where its *a priori* character is practically admitted. Mr. Bain here substantially agrees with Mill. The law in question (though in his opinion derived from a higher one) is one of the general results of all human experience—in other words, it is the expression of an uniformity which all human experience exhibits. Hamilton and Mansel would add to this statement “and must exhibit”; but that is the whole difference, if indeed the empiricist would not concede it also.

Very similar is Mill's explanation of why Arithmetical axioms are seen to be true by merely thinking of them—in which case I think Mr. Bain likewise does not differ very widely, though his discussion would have been much improved by an application of the Kantian distinction between analytical and synthetical judgments.¹ These axioms are seen to be true by merely thinking of them because they are laws of *all* numerable things, and mental states are numerable things. Here it is to be observed that these axioms always *were* true of all numerable things though we may not have been always aware of their truth, and likewise that our mental states *were* numerable things from the first though possibly we did not know that they were so. Consequently it never was possible for us to reverse an arithmetical axiom in imagination. To suppose that we could have done so at any time, would be to suppose that at that time the law in question did not extend to all numerable things or else that imaginary objects were not then numerable things. Like the Law of Contradiction, the arithmetical axiom is a generalisation of our mental experience, and the uniformity which it expresses existed in our mental experience from the first. The axiom is, in no intelligible sense, a result of the

¹The non-recognition of this distinction lies at the root of a large number of metaphysical controversies. How is it possible to know by our concept of a thing any property not comprised in the concept? is a question that in many cases would silence the *a priori* theorist. As to the reply (already alluded to) that we can do so because in forming the concept we have learned the property of the thing by experience, the question at once arises, Is this property included in the concept or is it not? If it is included, the pretended explanation does not account for the alleged fact, namely that we can know by our concept some property of the thing which is *not* so included; but if it is not included, how can we learn the property *from the concept* without any reference to the experience, which may have been requisite for the formation of the concept but constitutes no element of it when formed?

law of inseparable association. That law could only come in, if the axiom was at first limited in its application to the presentations of sense, in which case it might explain how it afterwards came to be extended to the representations of imagination. But according to the explanation which I am now considering, the law was from the first applicable alike to presentations and representations—to sensations and ideas—the latter having always been numerable things as well as the former.

Nor is the empiricist's explanation of Geometrical axioms very dissimilar. Here we are told that the presentations and representations—the sensations and ideas—are exactly alike and that therefore the latter possess all the properties of the former. Two real right lines will not enclose a space. Two imaginary right lines are exactly like the real ones. Therefore they will not enclose a space. I do not find that in this case the resemblance between the real and the imaginary is described as a result of experience and association—as at first feeble and obscure and gaining in clearness and accuracy as we grow older. It is rather described as having existed from the first. If so, it was never possible for us to reverse a geometrical axiom in imagination. From the moment that we first formed the notion of a right line, the imaginary line was like the real one; but a pair of real right lines never would enclose a space and the exact resemblance of the imaginary lines to the real ones deprived them of all space-enclosing power likewise. Here again association is excluded. Our inability to conceive the reverse of a geometrical axiom existed from the first dawn of consciousness. There never was a time at which a pair of right lines enclosing a space was imaginable.

Not merely the Law of Contradiction therefore, but the axioms of Mathematics possess, according to both schools of philosophers (at least as represented by some of their leading exponents), an original necessity independent of association, and exhibiting itself in our experience, or rather consciousness, from our earliest infancy. But we are not at first aware of these mental necessities, and our earliest knowledge of them is not a knowledge of these truths in their general expression, but of the particular, or rather singular, judgments or propositions which come under them. And when the general expression is attained, it always asserts more than is included in the particular instances from which it was derived. It asserts that some property holds good of an entire class of mental states, when in fact it has only been found to hold good of certain members of that class. It is thus an induction, and liable to the doubts and uncertainties attendant on the inductive process in all its applications. Supposable exceptions are not excluded, and the generalisation (like generalisations of the phenomena of the external senses) may be either too wide or too narrow. In the latter case it will indeed be true, though it may not express the whole truth; but in the former it will be false, as asserting of an entire class of mental phenomena some property which is only true of a part of the class—of a sub-class. Such is the theory which, though not in terms advocated by the controversialists on either side, has, I

think, been, if not practically accepted, at least very closely approached by both; and if this theory is accepted, whether the truths in question are to be called *a priori* or *a posteriori* is little better than a dispute about names—a head to which, perhaps, some other disputes between the same schools of philosophy might also be referred. For instance, it is clear that a man born blind can learn to use all the terms expressive of space and its modifications with propriety—that is, as regards their denotations. It seems also certain that Reid's Idomenian (provided he possessed the faculty of speech) could do the same; for even if he was at first deceived by that author's *Geometry of Visibles*,¹ sight (at least if he was carried about) would soon suffice to correct these illusions. The philosopher who derives the idea of space from the muscular sensibility and touch is obliged to admit that there are discriminative sensations of sight corresponding to all varieties of figure, distance, and magnitude. The philosopher who derives the same idea from sight must allow a similar discriminative sensibility to the muscular sense and touch. Does not the point in dispute then reduce itself mainly to the question which of these two sensations (or groups of sensations) is to be called space? There is no doubt a further question, namely, which of them is called space by ordinary men who are capable of acquiring the idea in both ways; but the majority of writers seem to agree that the idea to which the name is usually given is a compound of both, in which, however, the visual element predominates.² Both of these derivations are *a posteriori*; but Hamilton and Platner have attempted to reconcile the sense-perception of space with the *a priori* theory of Kant, while the philosopher of Königsberg himself probably regarded space as an intuition produced in the passive mind by the operation of an independent *thing per se*—a theory which other writers might fairly describe as empirical.

I might pursue the subject somewhat further if I wished; but my object has been not to give a comparative view of two schools of philosophy, signalling their various points of contact, but merely to

¹ Reid's proof of this theory, however, is unsatisfactory, even to those who admit the original perception of extension but not of distance (from the eye) by sight. Take a great circle of the heavenly sphere, of which the observer is in the centre, and since the curvature of the circle is turned towards the spectator, the circular arc will present to the eye the same appearance that would be presented by a right line. Reid hence infers that the arc would be seen *as a right line*. But to say that two things A and B will present the same appearance to the eye is very different from saying that A will appear as B. The appearance presented may well be different from both.

² And does not another well-known controversy turn to a great extent on the question whether a certain mental state is to be called a "concept" or "the connotation of a class-name"? If the latter somewhat cumbrous phrase stands for a mental state, or an element of a mental state, the point in dispute can hardly be regarded as other than verbal. If it does not, what *does* it stand for? Surely it cannot stand for another name.

suggest the question whether they are so irreconcilable either in method or in results as is commonly supposed; and whether the stigma so often affixed to all branches of the science of mind on account of the supposed conflict among its expounders is not greatly exaggerated. Perfect agreement of course is not to be anticipated until the science has made much further progress, but there seems to me to be at present a much larger amount of it than the contending parties are perhaps themselves aware of.

W. H. S. MONCK.

ON THE FUNDAMENTAL DOCTRINES OF DESCARTES.

In Mr. Wallace's recently published book on Kant—which, on the whole, appears to me well and carefully written—I find the following summary (pp. 140-1) of the aims and drift of Cartesianism:

"Descartes, like Bacon, made a protest against scholasticism. But whereas Bacon set on foot a movement outside the boundaries of the school, which grew and increased independently till it came back strong enough to reconstitute philosophy, Descartes was rather an internal reformer who sought to reconstruct the irregular edifice of medievalism on a new principle. That principle was the centrality and priority of thought. A clear and distinct conception was made the certain evidence of reality and truth: *cogito, ergo sum*. Thus the negative criterion, that confusion and indistinctness indicate some error in our ideas, was at one turn translated into the positive canon that whatever we clearly and distinctly think is true. What Descartes no doubt sought was to get rid of the eternal see-saw of argumentation, and to found the ultimate objects of belief on immediate or intuitive perception. We have, he says, certain ideas—notably the idea of God—which are unmistakable, and force themselves upon our thoughts whether we will or not: ideas which we do not voluntarily make, and which are the inevitable issue of our mental constitution; hence, argues Descartes, the objects of these ideas exist independently of our thoughts, of which they so obviously are the masters. It would not be easy to determine how far these metaphysical presumptions are essential to Descartes: they certainly came to be the very essence of Cartesianism. Innate ideas—thoughts which, just because they were universally or generically thought, were treated as evidence of a reality beyond the mind—came to be the recognised creed of the Cartesian school."

This passage is, I think, likely to give the general English reader a seriously inaccurate view of the fundamental doctrines of Descartes; and as the errors and confusions which it tends to suggest or confirm seem to be rather widely current, I should like to take this opportunity of pointing them out. The misapprehensions in question relate to two points in the Cartesian system, which it will be convenient to discuss separately, so far as possible: (1) the importance in the system of Descartes' doctrine as to the origin of ideas, and (2) the nature and extent of the inference drawn by Descartes from the existence of clear and distinct ideas in the mind to the existence of corresponding objects independently of the mind. I will begin with the second point as being both the more important and the more difficult.

Mr. Wallace says that Descartes made a "clear and distinct conception" the "certain evidence of reality and truth"; and that he "sought to found the ultimate objects of belief on immediate and intuitive perception". Interpreting this last sentence by what follows the reader will naturally understand, as the cardinal doctrine of Descartes, that whenever we have clear and distinct conceptions or perceptions we may legitimately infer that corresponding objects exist independently of our thoughts—at any rate if the ideas of such objects "force themselves on our thoughts whether we will or not". And he would certainly find this interpretation of the Cartesian doctrine more or less confirmed by the statements of several other writers. It is not difficult to show that it is an erroneous interpretation: at the same time I must admit that the responsibility for it rests primarily on Descartes himself, who formulated his criterion of truth in the careless phrase "*les choses que nous concevons fort clairement et fort distinctement sont toutes vraies*". Descartes knew as well as any one that truth is an attribute not of "things," strictly speaking, but of judgments or propositions; and if he had only stated explicitly what kinds of propositions "concerning real existence"—to use Locke's phrase—he regarded as guaranteed by his criterion, much confusion might have been prevented. As it is, we have to gather his doctrine on this point from a comparison of various passages of his writings which it is not easy to make altogether consistent. Distinguishing *conception* and *perception*, we have to discover (1) whether Descartes meant that whenever I form a very clear and distinct general conception, I know or may know that a class of objects actually exist as so conceived, independently of my *conception*; and (2) whether he meant that from a clear and distinct *perception* I may similarly infer the existence beyond the mind of a particular object. The second of these propositions is substantially the doctrine of Common Sense (psychological subtleties apart): but the first appears so wild and so gratuitous a paradox that I should hardly have thought of proving that Descartes did not hold it, if something very like it had not been expressly attributed to him by writers of repute. For instance J. S. Mill, giving as a paraphrase of Descartes' "celebrated maxim" (*Logic*, B. V. c. iii. § 3) the proposition "whatever can be very clearly conceived must actually exist—that is if the idea includes existence,"—adds that Descartes "on this ground infers that geometrical figures really exist, because they can be distinctly conceived". In fact, however, Descartes selects this very instance in order to assure his readers that he infers nothing of the kind. "Having observed," he says, "that this great certitude which every one attributes to geometrical demonstrations is founded solely on their being clearly conceived, according to the rule already stated, I observed also that there was nothing at all in them which assured me of the existence of their object; for example, I clearly saw that, supposing a triangle to be given, its three angles must be equal to two right angles, but I did not therefore see anything which could assure me that any triangle actually existed" (*De la Méthode*, iv.). Indeed the whole point of the

ontological argument, in which the existence of God is inferred from the conception, is lost if we vaguely think with Mill that Descartes is prepared to draw a similar inference in the case of finite objects like triangles.

At the same time the statement of Mill above quoted must not be regarded as a quite inexplicable blunder. Its explanation is to be found in a passage in the Fifth *Meditation*, in which Descartes certainly gives geometrical figures as examples of a class of "things which cannot be esteemed pure nonentities, and which are not feigned by me . . . but have true and immutable natures of their own". Thus when I have imagined a triangle, I can demonstrate diverse properties of it, which "whether I will or not, I now clearly discern to belong to it, although I did not think of them when I imagined a triangle, and therefore they cannot be said to have been feigned or invented by me." And not merely of a triangle but of innumerable figures of which I cannot possibly have had scientific experience I can similarly demonstrate diverse properties, "which must certainly be all true since I clearly conceive them; and therefore they are something and not pure nothing: *car il est très-evident que tout ce qui est vrai est quelque chose, la vérité étant une même chose que l'être*". It is this last sentence which has misled Mill, who seems to have failed to catch Descartes' distinction between the "being" thus identified with the truth of geometrical propositions, and the "existence" independent of thought which Descartes expressly abstains from attributing to the geometrical figures. And I am afraid that the distinction has also escaped the attention of Prof. Veitch, in whose excellent translation of the *Meditations* I find "être" in this passage rendered "existence". Indeed the sentence quoted must be admitted to be mysterious and obscure to a plain reader; and probably Descartes felt this, as we find that in the quasi-geometrical demonstration of his main doctrines which forms the termination of his reply to the Second Objections to his *Meditations*, he makes the real meaning of the above sentence more plain in the form of the following axiom:

"Dans l'idée ou le concept de chaque chose, l'existence y est contenue, parceque nous ne pouvons rien concevoir que sous la forme d'une chose qui existe; mais avec cette difference, que dans le concept d'une chose limitée, l'existence possible et contingente est seulement contenue, et dans le concept d'un être souverainement parfait, la parfaite et nécessaire y est comprise."

That is, the criterion of "clear and distinct" conception guarantees the *possible* existence of the object conceived, in the case of finite objects; it guarantees *necessary* existence, in the single case of the Infinite and Perfect Being; but it can never warrant us in concluding that any finite object *actually* exists independently of the mind.

It remains to ask whether, in Descartes' view, this latter conclusion is immediately warranted by clear and distinct *perception* of a particular object—whether I have the same kind and degree of certitude that this paper on which I write *actually* exists beyond *my* mind, as I have that matter generally with spatial attributes *may* exist indepen-

dently of mind. Had Descartes answered this question in the affirmative, his doctrine (as I have said) would be only distinguished by a fine shade from Natural Dualism. But the language of the Third *Meditation* is quite irreconcilable with this interpretation of his view. He there draws a sharp distinction between a natural *inclination* to a certain belief and the *natural light* which makes me know it to be true. I cannot, he says, doubt what the natural light makes me see to be true (as *e.g.*, my own existence or geometrical axioms): but as for mere natural inclinations,—they frequently lead me wrong in action, and I must therefore regard them as untrustworthy guides to belief. And when I say that I am “taught by nature” to refer my ideas of material things to similar objects actually existing without my mind, I merely mean that I have an inclination to believe in the actual existence of such objects, not that their existence is shown to me by the natural light. Hence the actual existence of the individual things that I seem to perceive must be regarded as *prima facie* doubtful; and only capable of being established indirectly by proving the existence of God and relying on the Divine veracity.

The passage just referred to is so clear, and so entirely in harmony with the whole of Descartes’ teaching, that I should have not thought it needful to labour this point, had it not been for a passage in his *Principles* which at first sight appears to suggest a different view. He there says (*Princ.* Pt. II. § 1) that our senses “often stimulate us to *perceive clearly and distinctly* a matter extended in length, breadth, and thickness” &c. If this passage stood alone, I should certainly have understood it to imply that the actual existence without the mind of the particular matter perceived was guaranteed by Descartes’ fundamental criterion. But, as it is, the passage has to be interpreted in the light of the more full and explicit statement in the Third *Meditation*: and when we look closely at it in this light it will, I think, become plain that what Descartes regards as clearly and distinctly apprehended is merely the particular extension of the matter perceived and not its actual existence without the mind. In short, in the *Principles* no less than in the *Meditations* Descartes admits what Kant calls a “problematical Idealism”; only in the later treatise the problem is more swiftly and summarily brought to its realistic solution.

Let us now turn to the question of *origin*. According to Mr. Wallace’s statement, the inference which he describes Descartes as making from the existence of ideas in the mind to the existence of corresponding objects beyond the mind does not appear to be legitimated simply by the criterion of clear and distinct thought; it is dependent on the condition that the ideas in question are “not voluntarily made,” but are “the inevitable issue of our mental constitution”. Now it is true, as we have seen, that the validity of axioms or theorems relating to geometrical figures—as representative of the “true and immutable natures” of such figures—is inferred by Descartes from the fact that the mind finds itself in a manner constrained to conjoin the predicates of such propositions with their subjects; thus it is open to me to abstain from conceiving a triangle, but if I conceive it, I cannot now avoid

seeing, whether I will or no, that its three angles are equal to two right angles. But as I have said, in knowing what is affirmed in such propositions, I know nothing about *actual* existence beyond the mind, I merely know certain universal conditions or laws of *possible* existence. And I do not think that Descartes ever infers either (1) from the innateness or (2) from the involuntariness of any ideas the actual existence of their objects without the mind.

In discussing this it will be convenient to consider each of these two characteristics separately, since, though Mr. Wallace's statement mixes them up in a curious way, they are never so connected by Descartes. In the passage of the Third *Meditation* to which I have already referred he makes a threefold division of ideas in respect of their apparent origin, distinguishing (1) the apparently innate, (2) the apparently adventitious, and (3) those voluntarily invented by myself. The second class, which "seem to come from certain objects without me," are—no less than the innate—independent of my will; and this is undoubtedly a reason which leads me to think that they really do come from external objects like them. But, in Descartes' judgment, it is not an adequate ground for this conclusion: for, as he says, "peut-être qu'il y a en moi quelque faculté ou puissance propre à produire ces idées sans l'aide d'aucunes choses extérieures, bien qu'elle ne me soit pas encore connue; comme en effet il m'a toujours semblé jusques ici que lorsque je dors elles se forment ainsi en moi sans l'aide des objets qu'elles représentent". I cannot therefore regard the involuntariness of any of my ideas as proving the existence beyond my mind of objects like them, or even the existence of things different from myself at all.

Does, then, "innateness" furnish such a proof? I cannot see that Descartes anywhere affirms or even implies this. The only *idea*—as distinct from *axiom* or *principle*—that he expressly affirms to be innate is the idea of an Infinite and Perfect Being. But though, in this one case, he certainly believes the actual independent existence of such a being to be demonstrable from what may be known of the origin of the idea, his argument does not rely upon the innateness of this idea, but upon the peculiar impossibility of its being originated by a finite mind (or anything else finite). All ideas that represent modes of finite substances might be involuntarily and unconsciously produced by himself: but the idea of an infinite substance cannot, he thinks, be so produced; nothing can be adequate to produce it except the infinite substance that it represents. Hence in this one case we may argue from the existence of the idea in the mind to the independent existence of its object, as being its only possible cause. He certainly holds the idea to have been implanted by God in creating the mind, since there is no point in the mind's experience at which the idea is suddenly presented from without; but (I repeat) his inference from the idea to the independent reality in no way depends upon the innateness of the former.

Similarly, while holding that various "eternal truths" have their "seat in our thought," and are thus in some sense innate, he nowhere

rests his certitude as to their truth on their innateness. So far from regarding the doctrine of innate ideas or principles as a fundamental part of the Cartesian system, I should be inclined to say, on the contrary, that Descartes' new criterion of certitude has the effect of rendering the question of innateness philosophically unimportant: if the truth of an axiom is adequately guaranteed by the clearness and distinctness with which it is intuitively apprehended, our belief in it needs no further philosophical basis or warrant; it is therefore superfluous to inquire into its innateness. In fact I should say that when Locke declares that "self-evidence does not depend upon innate impressions" but on the perception of the agreement or disagreement of "clear and distinct ideas," he is really availing himself of a position essentially Cartesian to attack a doctrine which Descartes' system certainly retained, but which it could have spared without any sensible loss.

H. SIDGWICK.

THE MNEMONIC LINES OF THE SYLLOGISM.

Well it might be if it were now too late in the career of civilisation to write notes on the above subject. But it would be a mark of the sanguine temperament to think so. Too probably the Mnemonic Lines of the Syllogism will long continue to exemplify the union of vanity with vexation of spirit, and if so, the teacher of Logic will often have occasion to reflect that with all their excellence they are not impeccable. These verses, which embody the names of the legitimate Moods, and signify the processes by which Moods of the 2nd, 3rd, and 4th Figures may be reduced to their equivalents in the 1st Fig., have in fact three conspicuous faults: (1) they provide no means of reminding us, without reciting the whole, to which Figure any Mood belongs; (2) some letters occurring in the names, viz., *l*, *n*, *r*, *t*, have no significance; and (3) there are no names to indicate the direct reduction of *Baroco* and *Bocardo* by means of obversion and contraposition. But happily a few slight alterations will remedy all these shortcomings.

To what Figure any Mood belongs may be shown by inserting in all names of Moods of each Figure an appropriate letter; and neatness would be gained by using for this purpose the four liquids in the order they have in the alphabet; but as *m* already stands for mutation of premisses, this is undesirable. The next suggestion is to utilise the letters *l*, *n*, *r*, *t*, at present occurring in the verses without import; and of course to take them in alphabetical order. Let *l*, then, be the sign of the 1st Fig., *n* of the 2nd, *r* of the 3rd, and *t* of the 4th. Thus the first two imperfections will be rectified at once.

For attempting to form new names instead of *Baroco* and *Bocardo*, such as may indicate their direct reduction by means of obversion and contraposition, there is the authority of Archbishop Whately, who proposed to call them respectively *Fakoro* and *Dokamo*: *F* and *D*

standing (as usual) for reduction to *Ferio* and *Darii*, and *k* for a direction to contrapose the premiss whose sign preceded it. This was a good beginning, but hardly went deeply enough into the subject, and was based upon insufficient analysis. Before hazarding any improvement, however, a remark upon the letter *k* will not be out of place. It is now usually written in *Baroko* and *Bokardo* as the sign of the process called *Reductio ad impossibile*; but whilst the similar signs in other names *s*, *p*, *m*, are initials of the names of the processes they stand for, *k* has an arbitrary air very much out of keeping with the Science of Reasoning. The older Logicians, however, wrote the names of these moods as above, not with *k* but with *c*; because their indirect reduction involves the substitution of the *contradictory* (which begins with *c*) of their respective conclusions for the premisses after whose sign *c* stands. The change of *c* into *k* was perhaps made to avoid confusion with the initial of *Cesare*, &c.; but this seems sufficiently obviated by position; and it will be well to return to the older and more rational practice.

To return to the re-naming of *Baroko* and *Bokardo* with reference to their direct reduction: it may be laid down that it is desirable as much as possible to economise innovation. Now, in the modern treatment of *Baroko* both contraposition and obversion are resorted to, and as neither of these stratagems has a sign in the received lines we seem to want two new letters. Remembering however that contraposition is not a single process, but one consisting of obversion followed by conversion; and that in the reduction of these two Moods the conversion involved is always simple, which already has the sign *s*; we see that the only new sign needed is one for obversion. And examination of the alphabet shows that the only unused letters, practically available are *g*, *k*, and *v*, none of which sounds well with *s*. Indeed *v*, which is most naturally suggestive of obversion, cannot combine with *s* in one of the uses for which we want it. *K* with *s* is not so cacophonious as *g*; so in spite of its strange Russian look, we must adopt it.

The desirability of representing contraposition by the composite sign *ks* is strengthened by a further consideration. In the direct reduction of *Bokardo* thus:—

| | | | |
|-------------------|---|---|-------------------|
| Some M is not A | } mutating the premisses and contraposing o | { | All M is Z |
| All M is Z | | | Some not-A is M |
| ∴ Some Z is not A | | | ∴ Some not-A is Z |

it still remains to prove *Some not-A is Z* equivalent to *Some Z is not A*; and this cannot be done by any process given in the books, but must be accomplished by conversion followed by obversion or (as we may call it) Inverse Contraposition, which in the present scheme is readily represented by *sk*. This sign comes of course at the end of a word where *sv* would be unpronounceable.

For *Baroko* then we may write *Fuksnoko*; for *Bokardo*, *Doksumrosk*. And inserting the distinctive consonants above assigned to all the Moods of each Figure, and omitting all unmeaning letters, the lines will flow as follows:

Ballala, Celallel, Dalii, Felioque prioris.

Cesane, Camesnes, Fesinon { Banoco secundae.
Faksnoke

Tertia Darapri, Drisamis, Darisi, Ferapro.

Bocaro } Ferisor habet. Quarta insuper addit
Doksamrosk }

Bamatip, Cametes, Dimatis, Fesapto, Fesistot.

If these verses sound ridiculous, it may be remembered that on first acquaintance with the original ones, it needed some awe of the Science of Sciences to induce one to take them seriously. The alliteration perhaps is a little fulsome. But indeed they are not meant for poetry. According to Pope's maxim, "In every work regard the writer's end," they ought to be criticised as a mnemonic. Looked at in that light the chief drawback from the advantages of the above proposal seems to be, that none of the new names has any meaning, except as a mnemonic; whereas a few of the old names were Latin words: but it may be disputed whether that was a mnemonic advantage. And at any rate it seems a sufficient offset to say that there will no longer be as much point as formerly in calling these verses 'barbarous'.

CARVETH READ.

CONDITIONAL PROPOSITIONS.

The usual treatment of Conditional Propositions has several defects. In the first place it overlooks a most important class. The proposition, "He is not a negro and a white," is as truly conditional as the propositions containing the words "if," "or". It asserts that if it be given that he is a negro, it follows that he is not a white, or, if it be given that he is a white, it follows that he is not a negro. It does not assert that he must be the one or the other—he may possibly be a Red Indian. In other words this proposition asserts that the two contained propositions, "He is a negro," "He is a white," cannot at the same time be true, yet that both may at the same time be false. I admit that this can be reduced to two Hypothetical (Conjunctive) propositions. Capability of being reduced to another form ought not however to exclude special treatment, since Disjunctives can be reduced to Conjunctives, and yet they receive special treatment.

Again the usual treatment of Conditional Propositions is in difficulties regarding the meaning of the little word "or" in Disjunctives. Some writers maintain that the alternatives are exclusive, while others maintain that they are unexclusive. "Or" really has the two meanings and both should be taken into account. The necessity of distinguishing at least two kinds of Disjunctives is seen when we try to frame Disjunctive Syllogisms. Thus the *modus ponendo tollens* is valid when the alternatives are exclusive, invalid when the alternatives are unexclusive. Thirdly, we seek in vain in the ordinary text-books the reason of the division of Conditionals into Hypothetical (Conjunc-

tive) and Disjunctive. Moreover, the reason of the rules of these classes of propositions is not given. We are told that Conditionals express some kind of dependence between the contained propositions. Why are there only two kinds of dependence, and what are these two kinds?

These difficulties are avoided if we look upon Conditional Propositions as Categorical propositions which assert that there exists between the parts of the Conditional one of the relations in the scheme of Opposition, *viz.*, Subaltern, Subcontrary, Contradictory, or Contrary. The so-called Hypothetical proposition asserts Subaltern relation between its parts. Subcontrary relation is asserted by unexclusive Disjunctives, Contradictory relation by what are usually called exclusive Disjunctives, and Contrary relation by propositions like that at the beginning of the article. The proposed division would therefore stand thus:—

| | | | | | | | | | | |
|-------------|---|-------------|-------------------------------------|---|---|---|---|---|---|-----|
| Conjunctive | . | . | . | . | . | . | . | . | . | (1) |
| Disjunctive | { | Unexclusive | . | . | . | . | . | . | . | (2) |
| | | Exclusive | { both alternatives cannot be false | | | | | | . | (3) |
| | | | { both alternatives may be false | | | | | | . | (4) |

It can easily be seen that this mode of treatment avoids the difficulties above mentioned. Thus, the proposition at the beginning of the article comes under class (4). When "or" is taken exclusively, the proposition will belong to class (3), when unexclusively, the proposition will belong to class (2). Lastly, this scheme gives the rationale of the division and rules of Conditionals by showing the connexion between these propositions and the division and rules of Opposition. A few instances will perhaps make this clear.

"If he is a man, he is an animal." This means the fact of his being a man includes his being an animal. In other words, the second proposition is included in the first, which is exactly Subaltern relation. Hence we easily see the reason of the rules of these propositions. Affirm the antecedent, or, in other words, the whole, and the consequent, or part, must follow. Deny the consequent, or part, and of course the antecedent or whole is denied.

"He is either black or not black." This asserts that the two contained propositions, He is black, He is not black, cannot at the same time be true, yet one of them must be true. This is of course contradictory relation, and the reason of the rules of this class of propositions is at once seen.

I may remark, in conclusion, that the Scholastic text-books give this fourfold division, but, as far as I know, they do not explicitly state the connexion between Conditionals and Opposition.

T. B. SCANNELL.

ON THE MOTIVES AND IMPULSES OF THE MIND.

THE causes, subjectively considered, of all the conscious actions of human beings may be summed up under three heads:—(1) Motives, (2) Impulses, and (3) Motives and Impulses together. Thus a man will

sometimes act from impulse without motive, at others from motives without impulse, but usually from motives and impulses together. All the rational actions of human beings must spring from motives, or from impulses conjoined with motives. Other actions are either merely automatic or insane.

It is commonly said that the actions of men are to be regarded as good or bad, as foolish or intelligent, according to the motives which actuate them; that if their motives are morally good, their actions are morally good, and that if their motives are wise their actions are wise. The truth of this may be granted. If, however, we appraise the actions of men, not by a moral and intellectual, but by an utilitarian standard, we shall find that although good actions can result only from good motives, and wise actions from wise motives, useful actions may arise from motives that are not praiseworthy at all. Thus slaves, without any motives to be useful, may do very useful work. So may horses. So may donkeys and dogs. So may steam-engines. Evidently then, although the goodness or badness, the folly or wisdom, of an action is to be estimated by the goodness or badness, the folly or wisdom, of the motives it springs from, its utility or inutility remains the same whether its motives are good or not, or indeed though it should have originated without any rational motives at all.

The word "motive" simply means "that which moves to action". Hence whatever moves a man to any particular action may be called, in an intelligible sense, the motive of that action. It is not usual, however, to call all causes of human actions "motives," but only such causes as move a rational being intentionally to perform them with a view to some definite end.

No action can rightly be called morally good that does not proceed from morally good motives, nor intelligent that does not proceed from intelligent motives; but an action may be useful though it should not proceed from any motives to be useful at all. Convicts, for instance, confined in prisons, do, under compulsion, a great deal of useful work which they certainly would never be led to do by the goodness of their motives. We may be sure, however, of this, that although the utility of a man's actions does not necessarily depend—and fortunately so—on his motives to be useful, the baseness of his actions invariably depends on his motives to be bad. Although bad men, without motives to be useful, may still do works of usefulness, there can be no doubt that with motives in them to be bad, stronger than motives to be good, they are certain, if allowed to have their own way unchecked, to prove themselves not only more useless than useful, but positively detrimental and mischievous in a high degree.

Impulses of the mind are quite as much causes of human actions as are rational motives, but, as has been said, should be carefully distinguished from them. Of course at the bottom of both motives and impulses lies the mind—the personal Self or Ego—that is affected by them, and though its impulses and motives cannot always be separated in fact—as a man in terror may act to some extent from blind impulse, and to some extent also, simultaneously, from reasonable

motives—in thought they should never be confounded. A sudden impulse of the mind, although the mental cause in innumerable cases of human action, is not a motive in the strict and proper sense of the expression. Madmen often act from sudden impulses which have, apparently, no motives combined with them at all; exercising, seemingly, no reflection, however brief, as to what the result of their actions may be. A motive, properly regarded, always implies an object in view—an object sufficient, in the particular case, to account for the action done. It may be a very foolish object—an object which other people's minds would consider very insufficient indeed—and the man who does the action may be one of the silliest of men. In proportion, however, as he acts from motives—with such rational deliberation as he is capable of with a view to the accomplishment of his purposes—and not from the mere, blind, sudden, irrational impulse of the moment, he is permitted to rank as a sane man, even though his intelligence should happen to be of the most meagre and flimsy description.

That a man's motives are the mental causes of a great mass of his actions is abundantly clear; but it is equally clear that they are not the causes of all of them, for impulses undoubtedly are the mental causes of many. In what then consists the distinctive character of motives? I answer in this—in the fact that they are *Thoughts*. Impulses are conduct-influencing emotions; but *motives are conduct-influencing thoughts*. Ask a man why he did this or that deliberate action. I say "deliberate action" to distinguish it from an action done from mere mental impulse. Ask him, in other words, what was his "motive" for it, and, if he tells you truly what it was, he will do so by explaining what was the consideration, the reflection, the deliberation, the reason—in short, what were the *thoughts*—that moved him to do what he did. Ask him, for instance, why he took a walk. If he had any motive for it at all, it was simply a thought, a reason existing in his mind, which induced him to do what he did. Whatever else then motives may be taken to be, they are in all cases thoughts; not all thoughts, but thoughts which direct to action. A slave acts from external compulsion; an impulsive man at times from mere impulse; but a man who acts from motives, pure and simple, acts invariably from causative thoughts—from a train of reasoning, however sound, or however unsound, which leads him to do what he does. Motives, doubtless, may be occasioned by objects without us; but clearly in themselves they are subjective, and belong entirely to the mind. Sudden impulses of the mind, though called motive impulses or emotions, are not motives in the proper sense of the word as a term of science, nor are any automatic and unobserved thoughts. Motives are thoughts which are attended to; thoughts *pro* and *con*, in cases where motives conflict; thoughts, in short, which go to form a judgment, a decision, a bias of the will to a definite line of action. Such are motives—the conduct-influencing thoughts which, to an extent which is incalculable, determine our daily actions. Good motives are simply good thoughts disposing men to good actions, and

bad motives are simply bad thoughts urging them to actions which are mean, base, and ignoble. Thus to effect a change in men's motives is nothing more or less than to get, no matter how, conduct-influencing thoughts into their heads which they did not previously entertain.

JAMES COPNER.

MR. LESLIE STEPHEN ON UTILITARIANISM.

The two great streams of Moral Philosophy which take their rise in very different regions become ultimately convergent. Utilitarianism, directed into wider channels by Mill and Mr. Sidgwick, absorbs the practical maxims consecrated by experience; and the "innate" morality is tending in the direction of the Utilitarian end, when Mr. Spencer lays down that not even "life," apart from happiness, is for itself to be pursued. This confluence is now facilitated by Mr. Stephen's great work which has just appeared.¹

The Utilitarian obtains what he has all along been contending for, when it is conceded that there is "no action which would not become an abominable crime by the simple fact of its entailing such consequences (the perishing of mankind in torture), no crime which would not become an imperative duty if it evaded them" (p. 384); that in extreme circumstances it may be right to "lie and lie like a man". The feud of generations is composed. The representatives of the rival families—each descendant resembling the other more than his own ancestor—may accept the arbitration offered by our author; candidly admitting that there have been errors on both sides, here a theoretical underrating of happiness as an end, and there a practical miscalculation of its means.

Utilitarian may agree with Evolutionist in fostering the valour which "sticks to his post when the post has become useless," the "tenderness for life when the desirability of life has disappeared". Utilitarianism, which exercises its power by delegating it, accepts the evolutionary morality as a vicegerent principle, almost incapable of excess, almost above supervision, in "high collateral glory" with the supreme principle.

More, no doubt, appears to be claimed for the secondary principle by our Evolutionist. But this tinge of Arian heresy will seem much milder when it is observed that the articles from which he principally dissents are no part of utilitarian orthodoxy.

Thus he objects (pp. 358-372): "As we have no more reason for assigning special importance to the judgment of one man than to that of any other or for preferring the estimate of the saint to the estimate of the sinner, the standard which results from the average judgment must be an inferior or debasing standard". But it is no part of the utilitarian first principle that the happiness of each sentient shall 'count for one,' irrespective of that tendency to be reproduced and multiplied and spread which is the attribute of 'refined' pleasures.

¹ *The Science of Ethics* (Smith, Elder, pp. 462), announced in last Number. General review will follow.—Ed.

The feeling of the brute, like the opinion of the fool, should count indeed, but count for little.

Again it seems to be somehow assumed that, because the utilitarian end is the maximum aggregate of pleasures of individuals, therefore the individuals must be regarded as tending to this end as "independent atoms". Let us take a physical illustration. Given a system of particles of various masses connected by given massless links. Let the system move under given natural forces from one given position to another by a course or set of paths which it is required to determine, so that the whole aggregate of energy which is formed by putting together the energy which each particle of the system has at each instant of the flight (the *Action*) should be a minimum or maximum. Here is an intelligible problem, one which Nature is continually solving. Because the *propositum* is an aggregate of energies of individual particles, it would be the merest confusion to treat those particles as "uniform atoms" or as "independent atoms".

Nor can the Utilitarian recognise the features of the object of his worship in all that is said about the "assumption of the fixity of human nature," the "wrong assumption as to constants," "the utilitarian criterion rigid and yet indefinitely variable in different directions". The Utilitarian will assume as variable what is proved to be variable and as constant what is proved to be constant; and he will vary the variables, subject to the constancy of the constants, so that the integral of happiness should be the greatest possible.

In fine, grant that the Utilitarian has erroneously treated the social "organism"—losing his end by seeking it too directly; at most, "though he is liable to that error it is an error upon his own principles" (p. 376). Those principles are confirmed as often as these errors are corrected. For neither Mr. Stephen, nor Mr. Spencer, nor any other rational antagonist attempts to cast out Utilitarianism otherwise than in the name of utility. It is the old argument of Wedderburn against Bentham's principle: that it is *dangerous*. You appeal to the authority of Utilitarianism, when you urge the utility of not listening to her. Hers alone of empires cannot be deprived of its dependencies without its central government being recognised. You cannot cut off the branches without supporting yourself by the trunk—

Per damna per cædes ab ipso
Ducit opes animumque ferro.

F. Y. EDGEWORTH.

VII.—NEW BOOKS.

[These Notes do not exclude, when they are not intentionally preliminary to, Critical Notices later on.]

Kant. By WILLIAM WALLACE, M.A., LL.D., Fellow and Tutor of Merton College, Oxford. ("Philosophical Classics for English Readers.") Edinburgh and London: Blackwood, 1882. Pp. 219.

This new volume of the "Philosophical Classics" series goes far to fill a blank that remained after all the Kantian literature that has appeared in this country of late years. It gives an account of Kant's life and personality which is not only very graphic but, considering its length (94 pp.), remarkably complete. For the rest—

"The account of Kant's philosophy is founded directly on his own works. Chapter viii. gives glimpses of his scientific theories; chapter ix. notes the more salient points in his metaphysical views up to 1766; chapter xi. analyses the first quarter of the *Kritik der reinen Vernunft*; chapter xii. sums up the results of the rest of that work; chapter xiii. deals with the first part of the *Kritik der Urtheilskraft*, the second part of which is connected in chapter xiv. with the two chief ethical treatises. The *Prolegomena* and the *Metaphysische Anfangsgründe der Naturwissenschaft* are passed by; the *Religion innerhalb der Grenzen der blossen Vernunft* is briefly alluded to in the life; and the later essays, like the lectures, are only mentioned."

Chapter x., "The Philosophical Environment of Kant," has attention drawn to it elsewhere in the present number. It would be difficult to say how the author could have made better use of the limited space at his command. The frontispiece-portrait is taken from a painting made of Kant at the age of 44.

Political Institutions: Being Part V. of the *Principles of Sociology.*

By HERBERT SPENCER. London: Williams & Norgate, 1882. Pp. 229-770.

The present Part completes, with *Ceremonial Institutions* published in 1879, Vol. II. of the *Principles of Sociology*. The subject of it lies, in the main, beyond the province of this journal, but its appearance is to be noted as marking another stage in the execution of the author's "System of Philosophy". He finds the phenomena of Evolution with which he here deals to be "above all others obscure and entangled," but in view of his general task, of which much yet remains to be performed, he has had to be content with giving two years to his present treatment of them. The treatment, however, is based upon materials that have been gathered together during the past fourteen years, in the *Descriptive Sociology*.

Essays in Jurisprudence and Ethics. By FREDERICK POLLOCK, M.A., LL.D., late Fellow of Trinity College, Cambridge. London: Macmillan, 1882. Pp. x., 383.

Of the thirteen Essays here brought together (with some additions and re-arrangements) from different journals and reviews, in which they have appeared in the course of the last seven years, four are more specially ethical—"The Casuistry of Common Sense," "Ethics and Morals," "Marcus Aurelius and the Stoic Philosophy" (MIND XIII.), "Mr. Spencer's *Data of Ethics*". In these the author has "endeavoured to bring to a better defined issue certain points of ethical discussion by the help of distinctions founded on familiar legal conceptions and by specifically applying those conceptions and distinctions to admitted facts". In the other Essays, it has been his "aim to consider legal ideas and institutions as affected by or affecting the wider interests of history, politics, and practical legislation". In all he has followed by preference "the historical method".

Evolution, Expression, and Sensation, Cell Life and Pathology. By JOHN CLELAND, M.D., F.R.S., Professor of Anatomy in the University of Glasgow. Glasgow: Maclehose, 1881. Pp. 158.

In acknowledging, at the end of the last No. of MIND, receipt of a small pamphlet entitled *The Relation of Brain to Mind* (Maclehose), the author's name was accidentally omitted. The present volume, published earlier from the same hand, consists of six essays all more or less directed, as is also the pamphlet, to bringing forward certain considerations corrective of current doctrines of life and mind. Evolution proceeds in such a way as to "demand for the universe a background or underlying element of spirit". The Sense of Vision, while its organ is inexplicable by any process of natural selection, implies, like the other senses "an unknowable territory whence, and not from the material world, they take their origin". Sensation or Consciousness, which involves an "impressed condition of brain-substance," "extends from its special seat [in the hemispheres] so far [throughout the body] as there is continuity of the impressed condition". In the pamphlet the author seeks more especially to establish the following positions:—

"The degree of sensation varies according to the amount of the stimulus and the irritability of the nerves and brain, provided always the attention is the same." But "the amount of subsequent mental action set up by sensation has no quantitative relation to the sensation, and therefore none to the amount of energy liberated by the stimulus". "A certain amount of energy in the production of sensation quits the physical for the psychical world, instantaneously to return again in the excitation effected by the sentient mind on the substance of the brain."

On Mr. Spencer's Unification of Knowledge. By MALCOLM GUTHRIE. London: Trübner. Pp. 350.

"This book is an examination of Mr. Spencer's philosophy as presented in the *Principles of Biology* and the *Principles of Psychology*. Ch. I. is to

the effect that Mr. Spencer's works exhibit several different methods for the unification of knowledge which, being inconsistent, are mutually destructive. Ch. II. is a reply to Mr. Spencer's criticism, including a discussion of theories of knowledge. Ch. III. treats of several miscellaneous questions related to the study. Ch. IV. is an examination of Mr. Spencer's mode of affiliation of Psychological evolution upon Evolution in general, showing the want of continuity of the methods proposed. In the last section of this chapter the efficacy of the 'Double-aspect' theory as a means of explanation is discussed; a criticism of the views of Clifford and Bain upon this subject being given in an appendix. Ch. V. is a study of the *Principles of Biology* with regard to its place in Mr. Spencer's system. The deductive method of reconstruction is strictly criticised, and is found to be of value only so far as it is coincident with knowledge arrived at by *à posteriori* methods, and to be of no efficacy in filling up the blanks at present existing in biological science. Various imperfections of logical continuity are pointed out and the methods of affiliation upon evolution in general are condemned."

The Scientific Basis of National Progress, including that of Morality.

By G. GORE, LL.D., F.R.S. London: Williams & Norgate, 1882. Pp. 218.

"The greatest obstacle to the discovery of new knowledge in this country lies in a widespread ignorance of the dependence of human welfare upon scientific research. I propose therefore to show, in a brief manner, that the essential starting-point of human progress lies in scientific discovery; also that new truths are evolved by original research made in accordance with scientific methods; and to illustrate these statements by examples; also to point out how such research can be encouraged. The book is divided into four chapters, *viz.*:—1st, The Scientific Basis of Material Progress; 2nd, The Scientific Basis of Mental and Moral Progress; 3rd, New Truth and its Relation to Human Progress; and 4th, The Promotion of Original Scientific Research."

Outlines of Primitive Belief among the Indo-European Races. By

CHARLES FRANCIS KEARY, M.A. London: Longmans, 1882. Pp. xxi., 533.

"There are two roads along which students are now travelling towards (we may reasonably hope) the same goal of fuller knowledge touching Pre-historic Belief. One way is that of Comparative Mythology. . . . The other method, which is an historical rather than a scientific one, may be called the study of the History of Belief. In it our eyes are for the time being fixed upon a single race of men; and it is the relationship of these people to the world by which they are surrounded that we seek to know." These "outlines of early Aryan belief belong to the class of studies which are distinctly historical in character. They are not designed to establish any new theory of the origin of belief among mankind; nor are they meant to deal with theories which relate to creeds other than the Indo-European. They are essentially a record of facts."

Means for Learning how to Reckon certainly and easily: with the Elementary Ideas of Logic. Posthumous work of MARQUIS DE

CONDORCET. Published by his Widow, Mme. de Condorcet. Translated by J. Kaines, D.Sc. London: Reeves & Turner, 1882. Pp. 95.

This little work, composed in Condorcet's last days just before his

tragic end and published afterwards from the leaves he had transmitted one by one to his wife from his hiding-place, consists of two nearly equal parts—(1) twelve short Lessons, expounding the formation of numbers and the four fundamental processes of reckoning; (2) a series of Observations on each lesson for the guidance of teachers, directing them how to give and apply the lessons, and also how to make clear to the youngest comprehension the logical principles involved in the various steps of the processes. The treatise, besides being admirably lucid throughout, is often marked by original insight; and intelligent teachers will thank the translator for making it accessible to them.

Religion and Philosophy in Germany. A Fragment by HEINRICH HEINE. Translated by JOHN SNODGRASS. ("English and Foreign Philosophical Library.") London: Trübner, 1882. Pp. 177.

The sketches here translated first appeared in French in 1833, though they seem to have been originally composed, as they afterwards were also published, in German. The translator has taken the German text as the basis of his version, but notes all changes of importance introduced into the revised French Edition which last left Heine's hands. As an attempt, not without some measure of success, to give English readers an idea of Heine's characteristic style, the translator's work deserves acknowledgment. The sketches, however, written as they were for effect at the time, have hardly such permanent value as very well justifies their admission into the "English and Foreign Philosophical Library".

The Sarva-Darśana-Saṃgraha or Review of the Different Systems of Hindu Philosophy. By MĀDHAVA ĀCHĀRYA. Translated by E. B. Cowell, M.A., Professor of Sanskrit in the University of Cambridge, and A. E. Gough, M.A., Professor of Philosophy in the Presidency College, Calcutta. ("Trübner's Oriental Series.") London: Trübner, 1882. Pp. ix., 281.

The work here translated was first printed in 1858, but had been used in 1828 by Wilson in his "Sketch of the Religious Sects of the Hindus". The author, who flourished in South India in the 14th century, passes in review the sixteen philosophical systems then current, "and gives what appear to him to be their most important tenets, and the principal arguments by which their followers endeavoured to maintain them". "The systems form a gradually ascending scale,—the first, the Chārvāka and Bauddha, being the lowest as the furthest removed from the Vedānta, and the last, the Sāṅkhya and Yoga, being the highest as most nearly approaching it." Prof. Cowell "can hardly imagine a better guide for the European reader who wishes to study any one of these Darśanas in its native authorities".

Théorie des Sciences. Plan de Science intégrale. Par L. BOURDEAU. 2 Tomes. Paris: Germer Baillière, 1882. Pp. xx., 490, 634.

The author of this work essays a task not different from that of Comte in the *Philosophie Positive*, so far as Comte was concerned (as

he was by no means chiefly concerned) to advance knowledge by a systematic consideration of the methods and results of the different lines of scientific inquiry. Having this for his exclusive aim, instead of any moral purpose or any ideal unification of human thought, the author orders the sciences not under the name of Philosophy but of Science in general. The scheme he sets forth is limited to the Speculative (as opposed to Practical) Sciences, and of these to such as are General (as opposed to Particular). General he calls those which are occupied with "aspects" (as distinguished from classes or departments) of things. Comte had the same limitation in view when he set up his hierarchy of the *Abstract Sciences*, and the designation Abstract seems decidedly the more appropriate. But the author, if he might better have retained Comte's word, urges forcible objections against Comte's actual classification: as that in putting Mathematics first it does not begin at the beginning; and that it mixes up concrete Sciences such as Astronomy, and (the author adds) Biology and Sociology, with those that are purely Abstract. His own scheme, as worked out in the book, has seven heads:—(1) Positive Ontology or Logic, science of Realities; (2) Metrology or Mathematics, science of Quantities; (3) Dynamic or *La Théséologie*, science of Situations; (4) Physic or *La Poïologie*, science of Modalities; (5) Chemistry or *La Craséologie*, science of Combinations; (6) Morphology, science of Forms; (7) *La Praxéologie*, science of Functions. It will be recognised at once that this scheme (whatever be thought of the author's new coinages) presents in its first and in its last two terms some striking and original features. What he calls Ontology or Logic is intended to supply the great initial omission in Comte's classification. An idea of its scope may be conveyed by quoting its subdivisions:—(A) Analytical, science of the Formation of Ideas, (*a*) Elementary, science of Objective Ideas, (*b*) Special, science of Subjective Ideas; (B) Synthetic, science of the Relations among Ideas, (*a*) Comparative, science of the Association of Ideas, (*b*) General, science of the Identification of Ideas. The Methods of the seven General sciences are thus distinguished: (1)—Intuition, (2) Deduction, (3) Observation, (4) Experiment, (5) Integration, (6) Comparison, (7) Connexion. The book is in every way noteworthy.

Grundzüge der practischen Philosophie. Dictate aus den Vorlesungen von HERMANN LOTZE. Leipzig: Hirzel, 1882. Pp. 84.

The dictated paragraphs which Lotze made the basis of his lectures on Psychology, published at the end of last year (*MIND* XXV., 154), are now to be followed by the series of corresponding summary statements which he was in the habit of dictating on other subjects to his students. Professor E. Rehnisch of Göttingen is devoting himself to the task of bringing the series out with the utmost care, seeking even to indicate the words in each paragraph on which Lotze used, for clearness, to lay stress as he delivered them. The present issue will be followed within the year by six other pieces, dealing with Philosophy of Religion, *Æsthetics*, Philosophy of Nature, Metaphysic,

Logic and Encyclopædia of Philosophy, History of Philosophy. There are none of these that will not be welcome, even when they give only in condensed form the ideas which Lotze was able to set forth at length in his published works; but some of them will be more especially valued, as never having been expanded in print. The *Outlines of Practical Philosophy*, including Politics as well as Ethics, are disposed in seven chapters: (1) General Principles, (2) Principles of Action, (3) Freedom of Will, (4) Realisation of Ethical Ideas, (5) Individual Life, (6) Society, (7) The State.

Der Kampf um's Unbewusste. Von O. PLUMACHER. Nebst einem chronologischen Verzeichniss der Hartmann-Literatur als Anhang. Berlin: Duncker (London: Trübner), 1881. Pp. 151.

Eduard von Hartmann. Erinnerungen aus den Jahren 1868-81. Mit Ed. von Hartmann's Portrait. Von C. HEYMONS. Berlin: Duncker (C. Heymons), 1882. Pp. 64.

In the first of these two pieces, Frau Olga Plumacher, who gave the readers of this journal, in No. XIII., a specimen of her powers, when she did battle for the doctrine of her master Hartmann, seeks to appreciate the weight of the varied criticism that has been brought to bear upon his fundamental principle of the All-One unconscious Spirit, as also to show what support it has received in the years since it was enunciated. The Appendix, of some 30 pp., contains a most careful bibliography of all Hartmann's works, with everything having a bearing thereon, from the year 1868. It is remarkable enough evidence of the productive and stimulative activity of a man who is still not more than 40 years old.

The other piece is a gossiping narrative by Hartmann's publisher of their relations with one another from the time of their first common venture in 1868. The worthy publisher discloses, among other business-secrets, the history of the wonderful advertisement-sheets with which it early became his wont to deck out the untiring philosopher's works. There is something of real biographical interest in the account of Hartmann's first wife (d. 1877), who, under her maiden name, A. Taubert, wrote so effectively in his defence and who seems to have exercised no little influence on his manner of writing, if not of thinking.

Abriss der Sprachwissenschaft. Von Dr. H. STEINTHAL, a.o. Professor für allgemeine Sprachwissenschaft an der Universität zu Berlin. Erster Theil: "Die Sprache im Allgemeinen". [Special Title: *Einleitung in die Psychologie u. Sprachwissenschaft.* Zweite mit Zusätzen versehene Auflage.] Berlin: Dümmler, 1881. Pp. xxv., 496.

The *Introduction to Psychology and the Science of Language*, published in 1871 as Part I. of the author's projected general work on the science with which his name is so closely associated, is here brought to a second edition before any other Part has seen the light.

The changes introduced into the body of the new edition leave the original paging untouched, longer additions (amounting in all, however, only to some eight pages) being thrown into an appendix at the end. In one of the supplementary notes, the author professes himself willing to accept Lange's and Wundt's statements of what in this country has been called 'conscious automatism'—meaning thorough-going parallelism (without cross-influence) of the physical and psychical series of processes—as agreeing with the doctrine of brain and mind he had himself put forward and now repeats. In another note, while maintaining the importance of Speech as the distinctive condition of human consciousness, he seeks to connect the rise of the faculty with the assumption of the upright posture and so account for its natural appearance in the course of animal evolution. Special reference is made (in the preface) to Glogau's *Abriss der philosophischen Grundwissenschaften* I. (MIND XX., 588) as having applied the author's ideas, beyond psychology, to the foundation of a theory of knowledge, in a manner which he will take another opportunity of appreciating.

Reflexionen Kants zur kritischen Philosophie. Aus Kants handschriftlichen Aufzeichnungen herausgegeben von BENNO ERDMANN. Erster Band, erstes Heft. *Reflexionen zur Anthropologie.* Leipzig: Fues, 1882. Pp. x., 222.

"This publication is based upon Kant's interleaved copy of Baumgarten's *Metaphysica*, covered with his written notes. The present issue, dealing with the topics, is arranged (pp. 65-222) according to the scheme, of the *Anthropologie*—Sense, Imagination, Understanding, Feeling, Desire; the Character of the Individual, the Sexes, Nations, and the Race. The Editor's General Introduction (pp. 1-34), upon the history of the text, shows how Kant was stirred up by Herder's attack to plan the publication of his lectures on Logic, Metaphysics, Natural Theology, Ethics, Physical Geography, &c., and refers also to the lost polemic drawn from him by Hamann's opposition. The Special Introduction (pp. 37-64) to the present section traces the development of Kant's Anthropological doctrines."

Vom phantastischen Pessimismus zum freudigen Realismus: Schopenhauer und Spinoza. Von Dr. KLENCKE. [Two tracts bound together: (1) *Pessimismus und Schopenhauer mit Bezug auf Spinoza als Heilmittel des Pessimismus.* Pp. 45; (2) *Spinoza mit Rücksicht auf Kant, Schopenhauer, Göthe und die moderne Naturwissenschaft.* Pp. 45.] Leipzig, n.d. [1881-2.]

Dr. Klencke begins with a vigorous picture of the pessimistic tendencies of modern Germany; there is one trait in this, "ein unzähliges, den Schweiss des Volkes verschlingendes Heer," which may be recommended to our recent amateur conscription-mongers. He regards the philosophy of despair as a real danger to European culture which must be attacked by sharp and serious criticism. Of this he gives a foretaste by describing Schopenhauer's view of the world as Goethe *minus* Love, and Kant *minus* Duty. After a general sketch of Schopenhauer's life and philosophy Dr. Klencke points out that,

while superficial points of agreement may easily be found in Schopenhauer and Spinoza, the ultimate ground of things and aim of knowledge is for Schopenhauer "das grosse Urnichts," for Spinoza "das selige Aufgehen in Gott". Schopenhauer quarrels with the world and rejects the world and life together. Spinoza, thinking not much better than Schopenhauer of the common pleasures and ambitions of life, yet holds that a good life, nay the life eternal, is possible without abjuring one's individual existence; a life which may be in the world but is not of it. And Dr. Klencke, though he makes larger concessions to Schopenhauer's belief in the general badness of mankind than seem at all needful, adopts Spinoza's view with decided and even enthusiastic preference. Life is a battle, but with something worth fighting for at the end of it; the kingdom to be won is not of death, as Schopenhauer would have it, but of life.

Thus far the first of the two tracts. The second gives a concise and on the whole an accurate summary of Spinoza's philosophy, with special regard to its practical bearings. It is not free from the common fault of laying too much weight on the purely formal parts of the system, but the exposition is always clear and careful, and shows that Dr. Klencke has really faced the difficult points. For example the importance of Spinoza's *idea ideae* in his psychology and ethics is rightly seen and maintained. Though he criticises various details of Spinoza's work, Dr. Klencke finally declares himself a monist; we should say perhaps a phenomenalist-monist, if the combination be allowable, for he seems to go along with several modern authors in considering the abolition of the *Ding an sich* a legitimate and necessary consequence of the critical philosophy. The essay contains many acute observations, and some ingenious translations of Spinoza's ideas into the language of modern science and art; but the promise of the title-page remains unfulfilled, for it leads us to expect a discussion of Spinoza's relations to Kant, Schopenhauer, Goethe, and modern scientific thought in general, and on these matters we get nothing but incidental hints. Dr. Klencke seems to have conceived a good deal more than he has found an opportunity to execute. For the rest, he writes well and sometimes brilliantly. It is to be regretted that the printer has disfigured his pages by a swarm of errors which the most ordinary attention on the part of the reader for the press would have removed. "Dos" for "das," "nom" for "nam," and "Spionza" for "Spinoza," go beyond the bounds of excusable oversight.

[F. P.]

BENEDICTI DE SPINOZA *opera quotquot reperta sunt*. Recognoverunt J. VAN VLOTEN et J. P. N. LAND. Volumen prius. Hagae Comitum, apud Martinum Nijhoff. 1882. 8vo, pp. xii, 630.

This is the first volume of what will henceforth be the standard edition of Spinoza, produced for the Spinoza Memorial Committee in Holland under the direction of Dr. Van Vloten and Professor Land. Both these scholars have long been familiar with Spinoza, and Prof. Land in particular has in the last few years prepared the way for this

edition by a series of critical studies. It may be a surprise to those who have not given special attention to the matter to hear that Spinoza's works were in sore need of critical editing; yet such is the fact. His writings were published in the first instance under circumstances unfavourable to accuracy. Modern editors have troubled themselves but little about the text, and the result is that the errors of the original editions, together with many others due to the careless printing of Paulus's edition of 1802, have gone on uncorrected to this day. The latest edition by Dr. Ginsberg, which professed to be an improvement on Bruder's, is the worst printed of all. Bruder's edition is the one generally used, and is a very good and useful piece of work in other respects; but the state of the text, for the reasons mentioned, leaves much to desire. Likewise no existing edition is complete. Bruder's, even if we call in aid Dr. Van Vloten's supplementary volume of 1862, leaves out various fragments of Spinoza which were or might have been known to exist in one or another place, but had fallen out of sight. Thus Dr. Van Vloten and Prof. Land found before them a very different task from that of a mere reprint. We have every reason to be confident that it will be carried out with that thoroughness which leaves nothing unfinished or in need of correction. For the first time a full and careful collation of the original editions of Spinoza's works has been made, with the incidental result of one or two bibliographical discoveries; and for the first time the student may now read Spinoza without having his eyes offended and his thought distracted by flagrant errors in the text. The present volume contains the principal works, namely the essay *De Intellectus Emendatione*, the *Ethica*, the *Tractatus Politicus*, and the *Tractatus Theologico-politicus*. It is obviously more convenient to have these in one volume than to separate them by adopting a chronological order, and only an extreme bibliographical purist could object to the course that has been taken. It would be desirable, however, to have as part of this edition a little more in the way of critical prolegomena; the reader should have the means of seeing at a glance what is known about the dates of composition and publication of Spinoza's several works. We hope this may yet be supplied in the second volume. As for the mechanical production of the book (which is printed in old-fashioned type so as to have a certain seventeenth-century air), it is in every way excellent. The volume still to come will contain, in addition to the remaining works of Spinoza, reproductions of all the portraits whose claims to authenticity deserve attention.

[F. P.]

VIII.—MISCELLANEOUS.

PROFESSOR THOMAS HILL GREEN of Oxford, who, since January last, has been developing in these pages a philosophical argument of characteristic closeness and force (not to have been completed before October), died after a short illness on March 26th in his forty-sixth year. For some time past his health had been giving cause for anxiety, but no such sudden termination of his labours was anticipated. He was born, on April 7th, 1836, at Birkin near Pontefract in Yorkshire, where his father, the Rev. Valentine Green (of a Leicestershire family), was Rector for many years; his mother, Anne Vaughan, was daughter of the Rev. Thomas Vaughan of Leicester. From Rugby, where he had his schooling, he passed to Balliol College, Oxford, of which he became Fellow, after taking his bachelor's degree in 1859. Appointed Ethical Lecturer at Balliol in 1866, and afterwards Tutor, he continued thenceforth to be mainly occupied with academic work, but acted for a short time as a special inspector under the Endowed Schools Commission. He resigned his tutorship after being elected Whyte's Professor of Moral Philosophy in 1878. His public authorship commenced with an article on "The Philosophy of Aristotle" in the *North British Review* for September, 1866, followed by another on "Popular Philosophy in its relations to Life" in March, 1868. The edition of Hume's *Treatise on Human Nature*, to the two divisions of which he contributed elaborate introductions which would have filled by themselves a considerable volume, appeared in 1874. The destructive criticism which he then brought to bear upon the movement of English philosophy from Locke to Hume, it was not obscurely hinted, was really meant to extend to the related way of thinking of Mill and others in the present generation; but three years afterwards he came more directly face to face with the later bearers of the English tradition, in a series of three articles on "Mr. Herbert Spencer and Mr. G. H. Lewes: Their Application of the Doctrine of Evolution to Thought" which appeared in the *Contemporary Review* between December, 1877 and July, 1878. In the last years he has been engaged on the work, *Prolegomena to Ethics*, of which the papers that have appeared this year in MIND form part and to which reference is made at p. 348 above.

It is some consolation amid the profound regret for his untimely fate, which is shared with his own attached friends by all who care for serious philosophical thinking in this country, that he has not been struck down before nearly completing a book in which (to judge by the published specimens of it) he has been able to give adequate *positive* expression to the ideas that have governed the imposing protest of his life against the conditions under which the English mind has commonly been content to speculate. Later on, when his thought is fully before the world, will be the time to consider what is the lesson (as lesson there is) to be learnt from his teaching—

to be learnt and not afterwards forgotten. Here it is simply noted that one of the deepest thinkers of his time has fallen out of the line of march, when he should have been seen at the front for many years to come; and from the sphere of practical endeavour there has vanished an earnest and noble spirit, devoted, as thinker of his speculative power has rarely been, to the active service of his fellow-men.

The other loss of the quarter has been recorded in every civilised tongue. The main facts of Darwin's life are now so well known that they hardly need repeating here:—that he was born at Shrewsbury, February 12th, 1809, the grandson of Erasmus Darwin and son of Dr. R. W. Darwin, a physician and Fellow of the Royal Society, his mother being daughter of Josiah Wedgwood of Potteries fame; that he was educated at Shrewsbury School, and after beginning a course of medical study at Edinburgh in 1825-6, removed to Christ's College, Cambridge, with some view of entering the Church, but with the effect of having the spirit of the naturalist awakened within him; that after returning from his three years' voyage in the 'Beagle' (begun in December, 1831) he married (in 1837), and finally settled at Down in Kent in 1842, to devote himself ever afterwards to the elaboration, by the most minute and varied research, of the ideas regarding the evolution and development of life that had begun to dawn upon him in the earlier years. The epoch-making *Origin of Species* appeared in 1859, followed by *Animals and Plants under Domestication* (including the hypothesis of Pangenesis) in 1868, *The Descent of Man* in 1871, and the *The Expression of the Emotions* in 1872—to mention only those of his works that have a more immediate bearing on the problems of mental life.

There is that in human knowledge and in human action which will for ever make a "Science of Man" impossible, in the sense that no investigation of mind in the way of positive science can of itself supply that ultimate interpretation of experience which must retain the name of Philosophy. The great scientific genius who has just been arrested in the work he was continuing at the age of 74, was not a philosopher as every generation has need of such to probe the foundations and direct the issues of its thought. He was not even a psychologist as the present age is not devoid of such, at once impelled and able to apply the new scientific principle of Evolution to the disentangling of the whole complex web of mental processes. But as, by the patient labour of a career prolonged to its natural term, he has transformed in his time the Science of Life, he has no less transformed, or forced to be transformed, the Science of Man also; and thereby has altered the whole complexion and range of that experience which the philosopher has to interpret. Nor should it be forgotten that particular questions of psychological science have been treated by him, in whatever unstudied terms, with a tact and insight all his own. It is by nothing short of a kind of unerring instinct that he has unravelled, for example, the question of Instinct itself in the famous chapter viii. of *The Origin of Species*. The

readers of MIND will remember the "Biographical Sketch of an Infant" which he contributed to No. VII.: how impossible it was for him to touch any subject and leave it as it stood, has been proved by the amount of inquiry into the mental life of children since evoked by his example. The simplicity and beauty of character joined with his supreme scientific power will pass into a proverb.

It has been resolved to erect a tablet in Balliol College Chapel as a memorial of Professor Green, and also, in consideration of his public spirit as an Oxford citizen, to found in connexion with the Oxford High School for Boys, of which he was a warm supporter, two Exhibitions for pupils proceeding to the Universities; one of two already founded having been given by himself. There will thus be one Exhibition, tenable for four years, open annually to competition. Contributions may be sent to J. L. Strachan-Davidson, Balliol College, Oxford; or C. A. Fyffe, Lancaster House, Savoy, London, W.C.; or J. J. Bickerton, Town Hall, Oxford.

Owing to Prof. Green's death, the English translation of Lotze's *System der Philosophie (Logik and Metaphysik)* will not appear before next year at the earliest. It will now be superintended by Mr. B. Bosanquet.

A collection of Essays by different writers dealing with current philosophical questions will appear shortly under the editorship of Mr. Andrew Seth and Mr. R. B. Haldane. The Essayists agree in attaching much importance to the special critical standpoint of Kant and Hegel and their recent English exponents, but do not see their way to accepting the systematic doctrines which are associated with it. The volume will consist of a series of attempts to apply critical principles to the detailed treatment of definite problems connected with the special sciences. It will be dedicated to the memory of Professor Green.

A new volume of "Bohn's Philosophical Library" is expected to appear in the autumn from the pen of Mr. E. Belfort Bax. It will consist of an Introduction comprising a biography of Kant and a chapter treating of Kant's place in the history of philosophy (with especial reference to the ontological problem) and influence on 19th century thought in general, followed by Translations of the *Prolegomena* and the *Metaphysische Anfangsgründe der Naturwissenschaft*. The last-mentioned work has not before been translated into English.

Dr. Thomas Maguire, author of an *Essay on the Platonic Idea, Essays on the Platonic Ethics, &c.*, has been appointed to succeed Mr. W. H. S. Monck as Professor of Moral Philosophy in Trinity College, Dublin.

THE JOURNAL OF SPECULATIVE PHILOSOPHY.—Vol. XV. No. 4. J. Watson.—The Critical Philosophy in its relations to Realism and Sensationalism. J. Royce.—Kant's Relations to Modern Philosophic Progress. L. F. Ward.—Kant's Antinomies in the light of Modern Science. Hegel.—On the

Absolute Religion (trans.). W. T. Harris—Kant's Refutation of the Ontological Proof of the Existence of God. Notes and Discussions, &c. Index to the Contents of the entire Fifteen Volumes of *The Journal of Spec. Phil.*

REVUE PHILOSOPHIQUE.—VII^{me} Année, No. 4. G. Séailles—Les méthodes psychologiques et la psychologie expérimentale d'après les travaux récents de M. Wundt. H. Joly—Psychologie des grands hommes (i.). Ch. Secrétan—Du principe de la morale (fin). Analyses et Comptes-rendus (E. Gurney, *The Power of Sound*, &c.). Rev. des Périod. Correspondance (E. v. Hartmann; F. Bonatelli). No. 5. J. Delboeuf—Déterminisme et liberté (i.). F. Paulhan—La renaissance du matérialisme. P. Tannery—Anaximandre : L'infini, l'évolution et l'entropie. Notes et Documents (Wundt—Sur la mesure des faits psychiques; Trautscholdt—Recherches expérimentales sur l'association). Analyses et Comptes-rendus. Notices bibliographiques. No. 6. A. Espinas—Les études sociologiques en France. i. Les colonies animales. J. Delboeuf—Déterminisme et liberté (ii.). F. Paulhan—Les variations de la personnalité à l'état normal. Notes et Documents (Th. Bernard—Sur quelques illusions optiques de mouvement). Analyses et Comptes-rendus. Rev. des Périod.

LA CRITIQUE PHILOSOPHIQUE.—XI^{me} Année, Nos. 1-17. W. James—Action reflexe et théisme (1). C. Renouvier—La *Philosophie de la Réflexion* de M. Shadworth H. Hodgson (2, 4, 11—a series of extracts from Mr. Hodgson's book, with introductory remarks); la physique de Descartes et la physique de Newton (6); *Descartes*, par L. Liard (10, 13); Les sept énigmes du monde de M. du Bois-Reymond (12, 17); Socrate et notre temps (14). Sh. H. Hodgson—Réponses aux notes de M. Renouvier sur mon examen de ses *Essais de critique générale* (16).

ZEITSCHRIFT FÜR PHILOSOPHIE, &c.—Bd. LXXX. Heft 2. J. Kreyenbühl—Die Teleologie als Weltanschauung (i.). H. Siebeck—Der Begriff des Bewusstseins in der alten Philosophie. J. L. Koch—Der menschliche Geist u. seine Freiheit. M. Eisler—Die Quellen des Spinozistischen Systems. Recensionen.

PHILOSOPHISCHE MONATSHEFTE.—Bd. XVIII. Heft 4. P. Natorp—Galilei als Philosoph. Recensionen u. Anzeigen. Literaturbericht. Bibliographie, &c. Heft 5. J. Baumann—Zwei Beiträge zum Verständniss Kant's. Recensionen u. Anzeigen. Literaturbericht. Bibliographie, &c.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE.—Bd. VI. Heft 2. R. v. Schubert—Ueber den Begriff des Seins mit besonderer Berücksichtigung Beneke's. G. Heymans—Die Methode der Ethik (ii.). E. Laas—Vergeltung u. Zurechnung (iv.). Anzeigen. Selbstanzeigen, &c.

Other Books, &c., received :—L. Stephen, *The Science of Ethics*, London (Smith, Elder), pp. 462. Hon. R. Noel, *A Philosophy of Immortality*, London (Harrison), pp. 202. R. F. Burton, *A Glance at the Passion-Play*, London (Harrison), pp. 168. S. S. Hennell, *Comparative Ethics*, Pt. II., London (Trübner), pp. 223-88. H. McColl, *The Growth and Use of a Symbolical Language* (Rep. from *Memoirs of Manch. Lit. and Phil. Soc.*, 1880-1), pp. 225-48. G. B. Kitson, *A New Page of External Evidence of Supernatural Revelation*, London (Virtue), pp. 45. F. Sewall, *The New Ethics*, New York (Putnam), pp. 61. F. L. Soldan, *The Century and the School*, Salem, Ohio, pp. 16. G. Vadalà-Papale, *Morale e Diritto nella Vita*, Napoli (Gennaro de Angelis), pp. 311; *Il Codice Civile Italiano*, I., Napoli (Morano), 118. A. Angiulli, *La Pedagogia, Lo Stato e la Famiglia*, Sec. Ed. riv., Napoli (Sommella), pp. 107.